

Dr. Marca V.C. Wolfensberger

Talent Development in European Higher Education

Honors Programs in the Benelux,
Nordic and German-Speaking Countries



Springer Open

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Foreword

Education is a field that is prone to waves of popular initiatives and priorities, some of them transformative and lasting, others the source of persistent debate and scrutiny, and some gone the way of dinosaurs in the shifting landscape of pedagogical research and practice. One topic that has received continuous and considerable attention over many years is how to encourage, support, and reward talent development among highly motivated, high-achieving students. Interestingly, much of the scholarship in the field has been directed at gifted programs for youths in grade schools and high schools, where issues of differentiation have persisted over time. In higher education, most of the work has come from the area of honors education in the United States, with the leadership of the National Collegiate Honors Council as a chief advocate. Broadened beyond the academic realm, the quest for excellence has given rise to innumerable centers and consulting services that proport to foster talent development in personal, social, government, corporate, and other domains. For example, a simple web search will produce countless links to specialized offices at dozens of colleges and universities which support talent development in schools and communities; likewise, the list of organizations and consulting firms that focus on nurturing creativity, innovation, and all sorts of talent is astonishingly vast.

Undoubtedly, talent development, a drive for excellence not just in academic accomplishments but also in one's contributions to society at large, is front and center in today's world. Dutch scholar, teacher, and researcher Marca Wolfensberger—who holds dual appointments at Hanze University of Applied Sciences Groningen Research Centre for Talent Development in Higher Education and Society and at Utrecht University's Faculty of Geosciences—has made great strides in putting the topic near the top of national concerns not only in the Netherlands but also in other European countries, complementing the long history of honors and gifted education research and programming in the United States. Wolfensberger's earlier dissertation monograph on *Teaching for Excellence: Honors Pedagogies Revealed* (Waxmann, 2012) situated her as perhaps the leading international voice on honors, one of the credentials which landed her among a select group of prestigious National Collegiate Honors Council Fellows. This book, *Talent Development in European Higher Education: Honors Programs in the Benelux*,

Nordic, and German-Speaking Countries, adds an important chapter in the growing studies dedicated to strategies for enhancing teaching and learning in programs intentionally designed for high-performing students with strong academic records as well as those who reveal the characteristics and promise of excellence if presented with the additional or different challenges that promote deeper, more significant learning in honors. Springboarding off her close connections within the National Collegiate Honors Council and her acquired knowledge of more than five decades of innovations in honors teaching and learning, Wolfensberger's report of how honors and the talent development agenda have begun to sprout all over Europe is an important contribution that reminds us of the obligation we have in higher education to help all our students reach their highest potential, particularly if they are among our most capable who deserve the specialized pedagogical approaches that address their needs. The recent expansions of the National Collegiate Honors Council in promoting the value of honors education internationally and in building an increasing professional network of institutions nationwide and abroad are testimony to the rising interests both in the United States and around the world in finding sound, effective ways of aspiring to excellence in higher education. The book is a wake-up call in some respects, an affirmation of what European nations are doing to inspire academic excellence in diverse institutions and what we may look forward to in the future as the movement spreads throughout Europe and other continents, where already progress is evident in Asia, South America, Central America, the Caribbean, and Oceania.

The book is an ambitious undertaking, comprising 5 parts and 17 chapters that reveal the growing trend in Europe to establish new approaches to policies and programs for inspiring excellence among motivated, bright students. After inspecting the special opportunities available to almost four million students at over 300 institutions in 11 countries, Wolfensberger's research discloses that at least 72 colleges and universities have some kind of honors program in Belgium, the Netherlands, Denmark, Finland, Germany, and Austria. Luxembourg, Norway, Sweden, Iceland, and Switzerland do not currently have honors programs, but they are not far behind the swell of interest in their neighboring countries. Wolfensberger's discoveries compel all of us in the higher education honors community to seek more robust methods of collaboration across our different programs and countries. The National Collegiate Honors Council is the primary professional honors organization in the United States, existing since the 1960s, and soon we hope to see more avenues for student and faculty development opportunities as well as professional and organizational networking as honors continues to grow across the globe.

As two leaders in the National Collegiate Honors Council, we could not be more pleased by Wolfensberger's discoveries. The rich possibilities for study-travel consortiums, faculty and student collaborations, shared research and scholarship, and combined efforts to influence national policies governing educational strategic plans and legislative priorities across diverse countries are exciting. Already, in 2012 and 2013, honors teachers, scholars, and students; government officials; and industry leaders have met in the Netherlands for two major, international conferences on honors, talent development, and excellence in academics and society in

general. The Sirius Programme network, established in Holland in 2008 with extraordinary federal funding to promote and nationally subsidize the spread of honors programs across the country, has seen remarkable success, launching an abundance of varied honors programs at 14 research universities and 25 universities of applied sciences. In fact, Dutch institutions constitute about half of all the schools with honors programs which are the focus of Wolfensberger's study in 11 countries. Even with the end of federal funding for the Sirius network, honors research, curricula, teaching, and learning continue to flourish in the Netherlands, clearly the front runner in the vanguard of honors education in Europe.

Our international colleagues have learned much from the National Collegiate Honors Council and the amazing variety of honors programs and colleges in the United States, but we have much to learn from the diverse cultural characteristics and operational approaches and standards of honors in Europe. Clearly, in the European context, research-driven approaches to honors pedagogy and scholarship are emphasized more prevalently; in the United States, we more often stress qualitative methods of exploring the nature and practice of honors education. One direction more intentional networking may take is to learn from each other how and when to apply various research strategies to strengthen the honors enterprise worldwide. Another particularly fruitful result of our future work together is the clarification of what we mean by "honors" in the first place. What are the characteristics of honors teaching and learning? How and why are challenge, risk, interdisciplinarity, collaboration, reflection, research, ethical conduct, community, integrity, and other qualities ubiquitously associated with honors at the core of our programs across different nations? Can we develop a common language to define honors, communicate about it, and assess its added value to higher education? The road ahead presents us with an exciting threshold, indeed.

As we watch with pride and enthusiasm from the other side of the Atlantic at the amazing growth of honors abroad, those of us involved in honors in the United States imagine the opportunities that lie ahead. The potential benefits of international collaborations are exhilarating for our students, our faculty, our institutions, and our countries. What if we could cooperate to design challenging courses that students from different nations could take in honors programs across national borders? What if honors faculty could take advantage of visiting professorships and teaching fellowships elsewhere to develop their teaching and scholarship in honors? What if we held regular international workshops and conferences to strengthen our understanding and practice in honors? What if our shared vision of talent development and excellence in academics and beyond could help our institutions provide even better educational experiences for all of our students because of the ways in which honors serves as a laboratory for pedagogical experimentation and an incubator for creative research? What if we could collectively organize for political and economic influence and authority in our different nations' legislative arenas? All these "what ifs" and more are now more possible because of the knowledge we have thanks to Wolfensberger's research and findings. We, in the United States, have enjoyed a solid tradition of honors education and studies devoted to giftedness, but

the current attention to talent development in Europe and elsewhere, to preparing exceptional college and university learners as well as grade school and high school pupils, business moguls, and Disney “imagineers,” is an inspiring challenge for all of us dedicated to academic excellence.

President, National Collegiate Honors Council
Virginia Commonwealth University
Richmond, VA, USA

Barry Falk

Past President, National Collegiate Honors Council
Carnegie Foundation
Columbia College, SC, USA

John Zubizarreta

Preface

In late 2013, the Sirius Programme issued the assignment to Dr. Marca Wolfensberger for a first report about honors programs in higher education in several northern European countries. Dr. Wolfensberger is a professor (*lector*) at the Hanze University of Applied Sciences in Groningen, where she heads the Research Centre for Talent Development in Higher Education and Society. She also works at Utrecht University and is the first European fellow of the National Collegiate Honors Council (NCHC, the American association of undergraduate honors programs).

Dr. Wolfensberger was commissioned to prepare this report, under the working title 'Honors in northern Europe'. The goal was to do explorative research, to find and describe as many examples of initiatives stimulating excellence in higher education as possible.

Project leader was Dr. Maarten Hogenstijn, honors graduate at Utrecht University and self-employed at De Hertaler, working for the Hanze University of Applied Sciences Groningen on this project. He supervised the data gathering process and prepared the manuscript.

A number of honors students and alumni from different institutions have helped to gather data and write preliminary versions of chapters of this book. They are:

- Margit Ruis, Floris van Rees, Nico Brinkel and Florian Sloots (honors students Faculty of Geosciences – Utrecht University) – chapters Germany and the Netherlands
- Melina Ghasseminejad (honors alumnus University of Applied Sciences Leiden, student in psychology – University of Antwerp) – chapter Belgium
- Annemarie van de Vijsel (honors alumnus – Utrecht University) – preliminary data gathering and chapter Switzerland
- Vincent Warnaar (honors alumnus University of Applied Sciences Leiden) – chapter Finland

The maps in this book were created by Ton Markus, cartographer at C&M – Carto – Faculty of Geosciences, Utrecht University.

As the research process has been a team effort, this book is written in the 'we'-form.

Preliminary versions of this book have been read by experts, in order to double check the information, check for consistency and completeness. They are (in alphabetical order):

- Nynne Afzelius – Academy for Talented Youth, Denmark (chapter Denmark)
- Mag. Susanne Aigner – Vienna University of Economics and Business, Austria (chapter Austria)
- Helen Bråten – Norwegian Accreditation Agency (chapter Norway)
- Dr. Ella Cosmovici Idsøe – Stavanger University, Norway (chapter Norway)
- Pierre van Eijl – Utrecht University (chapter the Netherlands)
- Dr. Antoine Fischbach – University of Luxembourg (chapter Luxembourg)
- Dr. Astrid Fritz – Austrian Research and Support Centre for the Gifted and Talented (ÖZBF) (chapter Austria)
- Esmee Gramberg – Sirius Programme, Netherlands (whole book)
- Dr. Silvia Grossenbacher – coordinator Netzwerk Begabungsförderung, Switzerland (chapter Switzerland)
- Stefan Hermann – Metropolitan University College Copenhagen, Denmark (chapter Denmark)
- Renske Heemskerk – Sirius Programme, Netherlands (whole book)
- Nelleke de Jong – Utrecht University, Netherlands (whole book)
- Dr. Elina Kuusisto – Helsinki University, Finland (chapter Finland)
- Prof. Dr. Steven Lierman – Katholieke Universiteit Leuven, Belgium (chapter Belgium)
- Dr. Linda Mattsson – Blekinge Institute of Technology, Sweden (chapter Sweden)
- Elisabet Mellroth – Karlstad University/Nordic Talent Network, Sweden (chapter Sweden)
- Dr. Jutta Möhringer – Technische Universität München, Germany (chapter Germany)
- Prof. Dr. Roland Persson – Jönköping University, Sweden (chapter Sweden)
- Uffe Sveegaard – ScienceTalenter/Nordic Talent Network, Denmark (chapter Nordic countries and Denmark)
- Dr. Meyvant Þórólfsson – University of Iceland (chapter Iceland)

In addition, four anonymous referees at Springer have provided valuable remarks on an earlier version of the manuscript.

The language use and readability of the manuscript were checked by Professor Kevin W. Dean and honors alumnus Michael B. Jendzurski from West Chester University in the United States of America.

Yoka Janssen, Astrid Noordermeer and Sundarajan Chitra at Springer have helped to guide the process towards publication in a very helpful, constructive and effective way.

The Netherlands

Marca V.C. Wolfensberger

Contents

Part I Introducing Talent Development and Honors in European Higher Education

1	Introduction	3
1.1	Europe and USA	4
1.2	Three Clusters of Countries	6
1.3	Five Parts	7
	Literature	9
2	Developing Honors Education in Specific National Contexts	11
2.1	Defining Honors Programs	11
2.2	Types, Elements and Scales of Honors Programs	12
2.3	Talented and Motivated	14
2.4	Reasons to Develop Honors Programs	15
2.4.1	Culture Towards Excellence	16
2.4.2	Political Views Towards Excellence	17
2.4.3	Educational Philosophy	17
2.4.4	Structure and Selectiveness of Education System	20
2.4.5	Competition Between Institutions	22
2.4.6	Labor Market Conditions	24
2.4.7	National Results in Comparative Research	25
2.4.8	Innovators and Pioneers	27
2.5	Discussion	28
	Literature	29
3	Methods and Limitations	31
3.1	Methodology	31
3.2	Education Systems	32
3.3	Programs per Higher Education Institution	33
3.4	Including and Excluding Programs	36
3.5	Limitations	37
	Literature	39

Part II The Benelux Countries

4 The Netherlands: Focus on Excellence,	
Honors Programs All Around	43
4.1 Education System.....	43
4.2 Culture and Policy Towards Excellence.....	49
4.3 New Developments	53
4.3.1 Honors Programs per Higher Education Institution.....	53
4.4 Research Universities.....	56
4.4.1 University of Amsterdam.....	57
4.4.2 Utrecht University	58
4.4.3 University of Groningen	59
4.4.4 VU University Amsterdam.....	59
4.4.5 Leiden University	60
4.4.6 Erasmus University Rotterdam	60
4.4.7 Technical University Delft.....	61
4.4.8 Radboud University Nijmegen.....	61
4.4.9 Maastricht University.....	62
4.4.10 Tilburg University	62
4.4.11 University of Twente.....	63
4.4.12 TU/Eindhoven.....	63
4.4.13 Wageningen UR	64
4.4.14 Private University: Theological University of the Reformed Churches Kampen.....	64
4.5 Universities of Applied Sciences	64
4.5.1 Amsterdam University of Applied Sciences	65
4.5.2 Fontys University of Applied Sciences	67
4.5.3 HU University of Applied Sciences	68
4.5.4 Rotterdam University of Applied Sciences	68
4.5.5 HAN University of Applied Sciences	68
4.5.6 Inholland University of Applied Sciences	69
4.5.7 Avans University of Applied Sciences	69
4.5.8 Hanze University of Applied Sciences Groningen	69
4.5.9 Saxion University of Applied Sciences.....	69
4.5.10 The Hague University of Applied Sciences	70
4.5.11 Windesheim University of Applied Sciences.....	70
4.5.12 Zuyd University of Applied Sciences	70
4.5.13 NHL University of Applied Sciences.....	70
4.5.14 Stenden University of Applied Sciences	71
4.5.15 University of Applied Sciences Leiden.....	71
4.5.16 Breda University of Applied Sciences	71
4.5.17 HZ University of Applied Sciences	71
4.5.18 ArtEZ Institute of the Arts	72
4.5.19 Amsterdam School of the Arts	72
4.5.20 HAS University of Applied Sciences.....	72

4.5.21	Marnix Academie	72
4.5.22	Driestar Educatief	73
4.5.23	Gerrit Rietveld Academie	73
4.5.24	Hogeschool De Kempel	73
4.5.25	Iselinge	73
	Literature	74
5	Belgium: Complex System, Differentiated Development	77
5.1	Education System	77
5.2	Culture and Policy Towards Excellence	81
5.3	Honors Programs per University	83
5.3.1	Katholieke Universiteit Leuven	83
5.3.2	Ghent University	85
5.3.3	University of Antwerp	87
5.3.4	Inter-university Program	88
	Literature	88
6	Luxembourg: Small, Multilingual and International	91
6.1	Education System	91
6.2	Culture and Policy Towards Excellence	95
6.3	New Developments	96
	Literature	97
Part III The Nordic Countries		
7	Denmark: Strong Focus on Talent Development	105
7.1	Education System	105
7.2	Culture and Policy Towards Excellence	109
7.3	New Developments	112
7.4	Honors Programs per Higher Education Institution	114
7.4.1	Aarhus University	116
7.4.2	University of Southern Denmark	116
7.4.3	Roskilde University	117
7.4.4	Copenhagen Business School	118
7.4.5	Technical University of Denmark	119
7.4.6	University College Lillebaelt	121
7.5	Programs Outside Formal Higher Education System	122
	Literature	123
8	Norway: Slow Shift Towards Differentiation	125
8.1	Education System	125
8.2	Culture and Policy Towards Excellence	130
8.3	New Developments	133
8.4	Honors Programs per Higher Education Institution	134
	Literature	136

9	Sweden: Incentive to Move Towards More Differentiation	139
9.1	Education System.....	139
9.2	Culture and Policy Towards Excellence.....	144
9.3	New Developments	148
9.4	Honors Programs per Higher Education Institution.....	148
	Literature.....	150
10	Finland: Excellent Basics, Selective Continuation	153
10.1	Education System.....	153
10.2	Culture and Policy Towards Excellence.....	157
10.3	New Developments	160
10.4	Honors Programs per University.....	160
10.4.1	Aalto University	162
10.4.2	University of Turku.....	162
10.4.3	University of Oulu	163
	Literature.....	163
11	Iceland: Getting Back on Track	165
11.1	Education System.....	165
11.2	Culture and Policy Towards Excellence.....	168
11.3	New Developments	170
11.4	Honors Programs per Higher Education Institution.....	170
	Literature.....	172

Part IV The German-Speaking Countries

12	Germany: Foundations Supporting Talents	179
12.1	Education System.....	179
12.2	Culture and Policy Towards Excellence.....	184
12.2.1	Primary and Secondary School Age	185
12.2.2	Individual Support from Foundations	186
12.2.3	Excellence Initiative.....	188
12.2.4	Excellence in Higher Education.....	189
12.3	New Developments	190
12.4	Honors Programs per University.....	190
12.4.1	Leuphana University Lüneburg.....	194
12.4.2	University of Oldenburg.....	195
12.4.3	Technical University Hamburg-Harburg.....	195
12.4.4	University of Freiburg.....	197
12.4.5	University of Ulm	198
12.4.6	WHU – Otto Beisheim School of Management	198
12.4.7	Bonn University	199
12.4.8	University of Paderborn	200
12.4.9	Saarland University	200

12.4.10	University of Regensburg.....	201
12.4.11	Technical University Munich (TUM)	201
12.4.12	Elite Network of Bavaria	202
Literature.....		209
13	Austria: A Rapidly Expanding Higher Education Sector	213
13.1	Education System.....	213
13.2	Culture and Policy Towards Excellence.....	217
13.3	New Developments	220
13.4	Honors Programs per University.....	220
13.4.1	University of Graz and Technical University of Graz.....	221
13.4.2	Vienna University of Economics and Business (Wirtschaftsuniversität Wien)	223
13.4.3	Technical University of Vienna (TU Wien)	226
Literature.....		226
14	Switzerland: A Patchwork, Not (Yet) Including Honors	229
14.1	Education System.....	229
14.2	Culture and Policy Towards Excellence.....	233
14.3	New Developments	235
14.4	Honors Programs per Higher Education Institution.....	236
Literature.....		238
Part V Talent Development and Honors in European Higher Education: A Comparative Perspective		
15	A Comparative Perspective	241
15.1	Countries Compared	241
15.1.1	The Benelux Countries	242
15.1.2	The Nordic Countries.....	244
15.1.3	The German-Speaking Countries.....	245
15.2	Talent Provisions Throughout Education Systems	246
15.3	Selectiveness of Higher Education Entry.....	247
Literature.....		249
16	Perspectives on Talent Development in European Higher Education	251
16.1	Five Basic Conclusions	252
16.2	Scale and the Supranational Context	254
16.2.1	Research.....	254
16.2.2	Rankings	255
16.2.3	Bologna Process and Horizon 2020.....	255
16.3	Factors at the National Scale.....	256

16.4	Ideological Factors	257
16.4.1	The Nordic Countries.....	257
16.4.2	The Benelux	258
16.4.3	The German-Speaking Countries.....	259
16.4.4	Countries Compared	260
16.5	Institutional Factors	261
16.5.1	Progression in Education	262
16.5.2	Recruitment.....	262
16.5.3	Economy, Business, and Financing	263
16.5.4	Politics.....	264
16.5.5	Selection and Flexibility	265
16.6	Concluding Remarks.....	266
	Literature.....	267
17	Breaking the Academic Lock Step.....	269
17.1	The Value of Promotion of Excellence	269
17.2	A Long-Term View	271
17.3	Other Perspectives.....	272
17.3.1	Students and Teachers	273
17.3.2	A Broader Vision on Talent.....	274
17.4	Future Developments and Research.....	274
17.5	Concluding Remarks.....	276
	Literature.....	278
	Appendices	279
	Appendix 1: List of All Universities in Germany	279
	Literature.....	283
	Appendix 2: Key Links	284
	Appendix 3: Contact Details Honors Programs.....	294
	Appendix 4: Interviews with Key Persons.....	305
	Roland S. Persson (Sweden): ‘Policy weighs so much heavier than does fact’	305
	Elisabet Mellroth (Sweden): ‘We don’t talk about gifted or talented’	306
	Linda Mattsson (Sweden): ‘They just gave you another book’.....	307
	Nynne Afzelius (Denmark): Challenges, Advice and Gathering	309
	Uffe Sveegaard (Denmark): ‘They really flourish’	310
	Stefan Hermann (Denmark): ‘Talent development is unequally distributed’	311
	Ella Cosmovici Idsøe (Norway): ‘The new generation is kind of laid-back’	312
	Helen Bråten (Norway): ‘We don’t have that tradition in Norway’.....	313
	Vigdis Vandvik (Norway): ‘SFU status gives us leverage’.....	314
	Grethe Sofie Bratlie (Norway): ‘Ph.D. is the way of taking care of them’	315

Susanne Aigner (Austria): ‘Guiding the best of the best’	317
Victor Müller-Oppliger (Switzerland): ‘We are doing too little at the university level’	317
Hans-Joachim Gehrke (Germany): ‘Small legal restriction is irrelevant’.....	319
Stephan Bedke (Germany): ‘You have to have an elite’.....	320
Appendix 5: Lists of Tables, Figures, Maps and Boxed Texts.....	322
List of Tables.....	322
List of Figures.....	323
List of Maps	324
List of Boxed Texts	325
Appendix 6: Acknowledgements and Thanks.....	327
Index.....	329

List of Abbreviations and Terms

The list below includes terms that are used in the general chapters of the book and/or come back in individual chapters. Abbreviations that are used only in a single country chapter and explained there are not included here.

Benelux	This refers to the countries of the Netherlands, Belgium and Luxembourg. They cooperate in an intergovernmental body called the Benelux.
Bologna Declaration/Process	Series of agreements between European countries to ensure comparability in the standards and quality of higher education qualifications, starting with a joint declaration in the Italian city of Bologna in 1999.
CEMS-MIM	One-year postgraduate, pre-experience degree program in International Management offered at 29 universities in the international CEMS Alliance.
CV	Curriculum vitae, résumé.
ECHA	European Council for High Ability, European organization which aims to advance the study and development of potential excellence in people.
ECTS	European Credit Transfer and Accumulation System, system introduced in the Bologna process to make students' attainments comparable. For successfully completed studies, ECTS credits are awarded. One academic year corresponds to 60 ECTS credits.
EHEA	European Higher Education Authority, organization meant to ensure more comparable, compatible and coherent systems of higher education in Europe, founded in 2010 and overseeing the Bologna process.
EU	European Union.

Eurostat	Statistical bureau of the European Union.
Euryedia/Eurydice	European Encyclopedia on National Education Systems, common encyclopedia in which European countries describe their whole education system, kept up-to-date.
Friskolor	Independent schools in the Swedish school system, some of which are run by private companies.
GDP	Gross domestic product.
GPA	Grade point average, average of the grades a student received in a certain period or at certain examinations, often used as admission criterion for higher education in general and honors programs in particular.
HEIs	Higher Education Institutions.
IBE	International Bureau of Education, the UNESCO institute specializing in educational contents, methods and structures.
ISCED	International Standard Classifications of Education, international system used to classify types of education, developed by UNESCO. It consists of different levels, running from 0 to 5b.
KMK	Standing Conference of the Ministers of Education and Cultural Affairs of the Bundesländer in Germany, where education matters are handled and rules are set.
Länder/Bundesländer	The individual states within the federal states of Germany and Austria.
Law of Jante	Concept suggesting that the culture within Scandinavian countries discourages people from promoting their own achievements over those of others. It is taken from a 1933 novel by the Danish author Aksel Sandemose.
NCHC	National Collegiate Honors Council, professional association of undergraduate honors programs in the USA.
Nordic Talent Network	Network set up in August 2013 to facilitate cooperation between researchers focusing on talent and giftedness in the Nordic countries.
NVAO	Nederlands-Vlaamse Accreditatie Organisatie, independent binational accreditation organization tasked with providing an expert and objective assessment of the quality of higher education in Flanders and the Netherlands.

OECD	Organisation for Economic Co-operation and Development, international economic organization of 34 mainly western countries.
ÖZBF	Österreichische Zentrum für Begabtenförderung und Begabungsforschung, Austrian Research and Support Center for the Gifted and Talented.
PISA	Programme for International Student Assessment. Program run by OECD, which publishes a report every 3 years on 15-year olds' achievements on standardized tests in maths, science and language in a large number of countries.
Platform Bèta Techniek	National Platform Science and Technology in the Netherlands, organization commissioned by the Dutch government, the education and the business sectors to ensure sufficient availability of people who have a background in scientific or technical education. It also runs excellence programs, such as the Sirius Program.
SAT	Scholastic Assessment Test, standardized test used for college admissions in the United States.
SFU	Senter for Fremragende Utdanning, Centres of Excellence in Education. Program set up in Norway to contribute to the development of excellent quality in higher education and to highlight the fact that education and research are equally important activities for higher education institutions.
Shanghai list	Annual list comparing achievements of universities, officially known as the Academic Ranking of World Universities Top-500.
Sirius Programme	National program promoting honors in higher education in the Netherlands.
Three-tier system	System introduced in the Bologna process, in which there are three cycles of higher education. The first is a bachelor phase, the second a master phase and the third a Ph.D. phase.
UNESCO	United Nations Educational, Scientific and Cultural Organization.
VET	Vocational Education and Training.

Part I

**Introducing Talent Development
and Honors in European
Higher Education**

Chapter 1

Introduction

Why and under what conditions are honors programs in higher education developed across Europe? And what is the current situation regarding talent development and excellence? These questions came up at meetings of the Sirius Programme,¹ a national program promoting excellence in higher education in the Netherlands.

The attention for excellence is growing in the Dutch higher education system. Most higher education institutions (HEIs) have now set up honors courses, programs or colleges (Wolfensberger 2012, p. 15). But this is a relatively recent development. The first programs started in 1993 (Wolfensberger et al. 2004, p. 120); their establishment was quite a struggle, as they did not fit very well in the egalitarian Dutch culture.

Since 2008, the Sirius Programme supports Dutch HEIs in fostering excellence among their students. The program ‘aims to gain insights into how excellence can best be supported and to examine what barriers to this currently exist’ (Auditcommission Sirius Programme et al. 2012, p. 2). At the time of writing, 23 institutions participate in the program and 19 of those have received grants to develop and support programs of excellence in the bachelor and/or master phase.² The Sirius Programme is financed by the Dutch ministry of Education, Culture and Science.

Over the last few years, Sirius member institutions and program coordinators increasingly started looking across the Dutch borders for inspiration and cooperation.³ Honors experts in the Netherlands knew from personal contacts that some programs

¹This program resides under the National Platform Science & Technology and is supported by the ministry of Education, Culture and Science.

²In total, 24 HEIs have taken part in the Sirius Programme, one of which has ended its participation early. Four institutions took part, but did not receive subsidies. The programs are regularly evaluated by the Audit Commission of the Sirius Programme. In addition, best practices are described in a number of (Dutch-language) publications.

³For instance, in 2012, a group of honors educators from HEIs participating in the Sirius Programme undertook a 3-day study trip to Denmark, where they were introduced to different talent support programs in higher education (Sirius Programma 2012).

do exist in different European countries. In a 2005 report, Dutch researchers found ‘incidental initiatives to offer something to talented students’ in other European countries (Van Eijl et al. 2005, p. 143).⁴ A structural inventory of excellence initiatives in European higher education had never been made.

This book is a first step to create such an overview. A research team under the leadership of Dr. Marca Wolfensberger from the Research Centre for Talent Development in Higher Education and Society at the Hanze University of Applied Sciences in Groningen (the Netherlands) has reviewed special talent provisions for almost four million students at 303 higher education institutions in 11 countries. Furthermore, the honors programs that were found are placed within their national and international contexts, including the local culture towards excellence and the structure of the national education system. This could only be achieved with the help and contributions of local experts. Twenty experts from all 11 countries have commented on the chapters about their respective country. All these people made important contributions to the aim of this book: to share knowledge about talent development and honors education and provide an overview of educational offers to talented students in the countries involved.

1.1 Europe and USA

We refer to educational offers for talented students in higher education mostly as ‘honors programs’. This book originates in the Netherlands and here, this is a well-known and accepted term for these offers. In other countries, terminology can be more contested and the term ‘honors’ might be more politically charged.⁵ We are aware of this, but for reasons of clarity we will stick to the term.

What is honors education and where does it come from? The concept of ‘honors’ we refer to in this book is focused on providing extra opportunities to talented students. It is best known from the American context (see Aydelotte 1944; Lamb 2012),⁶ although the concept of ‘honours’ seems to originate from Oxford University (Lamb 2012, p. 20).⁷ It is still widely used in higher education throughout

⁴The researchers mainly found information about the US, Canada and Australia. They concluded that apart from the incidental initiatives ‘honors programs are not known in France, Germany, the UK, Denmark, Switzerland and Belgium (Flemish community)’.

⁵For example in Germany, the term ‘honors’ is specifically mentioned in educational law, stating that it cannot be used on bachelor diplomas. More info on this issue can be found in the chapter about Germany.

⁶Honors education in the US was inspired by the work of Frank Aydelotte. In this book we use American-English spelling and therefore we talk about honors programs instead of honours programmes. We make two exceptions. First, if programs have an official name in British spelling, we use this name. Second, if we quote directly from sources using British spelling.

⁷According to Lamb, ‘Oxford is the educational institution that inspired pioneering U.S. honors educators early in the twentieth century’.

the United Kingdom (UK) (Lamb 2012, p. 22–26). However, the concept was awarded a different meaning in the UK over the years. British HEIs now use the term honours in their undergraduate degree qualification system.⁸ This is not the honors education we refer to in this book.

In the United States (US), about half of the 4,000 universities and colleges have an official strategy of honors education (Wolfensberger 2012, p. 13). A strong nationwide organization of honors programs exists: the National Collegiate Honors Council (NCHC) is the professional association of undergraduate honors programs.⁹ In 2012, the NCHC devoted a special issue of its journal emphasizing honors programs around the globe, for the first time in its history. Apart from the Netherlands, European countries were not very prominently represented.¹⁰

While there is a lack of specific information about provisions for talented and gifted students in European *higher education*, provisions for talented and gifted students in the European education systems *in general* form a topical and hotly debated subject. In the period from 2000 to 2005, three international overviews of provisions and policies around this issue were made by scientific researchers (Persson et al. 2000; Freeman 2002a, b; Mönks and Pflüger 2005).¹¹ However, focus was on primary and secondary education and little specific information about higher education was found. In 2006, a European overview called ‘Specific Educational Measures to Promote all Forms of Giftedness at School in Europe’ was presented in a Eurydice working document (Eurydice 2006). Special attention was paid to definitions of giftedness and local terminology, but the focus centered on primary and secondary education.

A few years of silence followed, but from 2011 international publications on talent development in European countries started pouring in again. During 2011–2012, Hungarian researchers, working in the Talent Centre Budapest, wrote a two-volume

⁸Generally speaking, there are three classes of honours degrees. On average, a first class honours degree is awarded to around 15 % of the degree candidates.

⁹See nchchonors.org for more information. In addition, HERU (Honors Education at Research Universities) organizes a bi-annual meeting for honors educators at research universities. See for example heru2015.com.

¹⁰Almost half of this issue was taken up by articles from or about the Netherlands. Other articles in the journal included descriptions of programs or experiences in the UK, Australia, Brazil, Chile, China, Mexico and Switzerland.

¹¹The first was a chapter called ‘Gifted education in Europe: Programs, practices and current research’ in the ‘International handbook of giftedness and talent’ (Persson et al. 2000). This was followed by British professor Joan Freeman’s two-volume report called ‘Out-of-school provisions for the gifted and talented around the world’, written for the British department of Education and Skills. Freeman made a long list of recommendations, including ‘the establishment of a network of models and centres of excellence around the world’ (Freeman 2002a, b). Two years later, the German education ministry asked researchers Franz Mönks and Robin Pflüger to do a survey with a slightly different approach, focusing on ‘gifted education’ for high-achieving children in all levels of education in 21 European countries. They concluded that ‘there is a dynamic growth of gifted education in Europe’, but most programs and developments found were aimed at children in primary and secondary education (Mönks and Pflüger 2005, p. 156). Van Eijl et al. (2005), in a report ordered by the Dutch Council of Education (Onderwijsraad), described some examples of honors programs at HEIs outside the Netherlands that were known to them, but found little information about the countries included in this book.

report about best practices in talent support in education in different countries (Györi 2011, 2012).¹² Although they mainly focused on programs in primary and secondary education, they also provided interesting information about the relations between policy development and talent programs. In 2013, the *Journal for the Education of the Gifted* devoted two issues to the theme ‘International Perspectives on Gifted Education and Talent Development’. This included articles about the current state of affairs in Hungary, Poland, Finland, England, Ireland, the Netherlands, Cyprus, Austria and more generally about German-speaking Europe.¹³ The articles provided useful and relevant insights about gifted education at all educational levels in some countries, but still no systematic overview of honors programs in European higher education was available.

In the same year, questions about talent development came up at EU meetings, more specifically in the European Economic and Social Committee. On its own initiative, this committee wrote an opinion titled ‘Unleashing the Potential of Children and Young People with High Intellectual Abilities in the European Union’ (EESC 2013). The committee recognized that providing a challenging education to these young people is very important. All ten recommendations urgently stress the need for more action by the EU member states. This is not only because it is important for young talents themselves, but also ‘to prevent the brain drain whereby more able people leave for other parts of the world in which to use their talents’ (ibid., section 3.3.8).

1.2 Three Clusters of Countries

The focus of this book is on three clusters of countries in northern and central Europe (Map 1.1): the Benelux countries (Belgium, the Netherlands, Luxembourg), the Nordic countries (Denmark, Norway, Sweden, Finland and Iceland) and the German-speaking countries (Germany, Switzerland, Austria). These countries are all somewhat similar to the Netherlands, where this study originates. They are all relatively rich countries with a well-developed education system and are all quite far in the Bologna Process.¹⁴ Therefore they form relatively comparable contexts for the development of honors education. Also, the understanding of the concept ‘honors’ (if present) in these countries refers mostly to the American situation with special

¹²The second volume included not only examples from Europe, but also from other countries such as Israel, Saudi Arabia, Singapore and Vietnam.

¹³ Kimberley L. Chandler was guest editor for these issues, which were published as issues 36(1) and 36(3) of the journal. More information at jeg.sagepub.com.

¹⁴The Bologna Process is a series of agreements between European countries to ensure comparability in the standards and quality of higher education qualifications, starting with a joint declaration in the Italian city of Bologna in 1999. The Lisbon Recognition Convention is one of its main instruments, creating comparable academic degree standards. See the list of terms and abbreviations for explanation of terminology.

Table 1.1 Basic characteristics of researched countries (Eurostat 2014)

Country	Inhabitants (millions) ^a	GDP per capita in euros ^a	Unemployment rate ^a
Austria	8.5	32,200	4.8
Belgium	11.2	29,600	8.4
Denmark	5.6	37,200	7.0
Finland	5.4	30,900	8.3
Germany	82.0	30,200	5.2
Iceland	0.3	32,900	5.3
Luxembourg	0.5	62,600	6.0
Netherlands	16.8	32,700	7.0
Norway	5.0	52,800	3.3
Sweden	9.6	35,300	7.9
Switzerland	8.0	44,600	n/a

^aPopulation numbers for 2013, GDP per capita for 2012, unemployment for October 2013 (based on International Labour Organization definition)

‘honors programs’, rather than the British situation, where ‘honours’ is mostly used as a classification system for degrees.¹⁵

Some basic characteristics of the countries are shown in Table 1.1. Germany is by far the largest country in this study, in terms of population. Luxembourg is the richest country, measured in Gross Domestic Product (GDP) per capita, while Norway has the lowest unemployment rate (Table 1.1).

More data relevant for the education system in the 11 countries will follow in Chap. 2.

1.3 Five Parts

The main text of the book is divided into 5 parts, comprising 17 chapters. A sixth part includes literature and appendixes.

1. Part I: Introducing honors in northern Europe. Here the concept of honors is explained and a working definition is presented. Also, factors influencing the development of honors programs are presented and methodological choices are discussed;
2. Part II: The Benelux countries. This consists of a short introduction and chapters for each country. This includes overviews of the national education systems, focused on access to higher education and provisions for excellent students. The local culture towards excellence is described, as well as government policy on this issue. Finally, existing honors programs per institution are presented;

¹⁵In this respect, the British Isles differ strongly from the continental European countries. They were therefore not included in this study.



Map 1.1 Countries in research project Talent Development in European Higher Education

3. Part III: The Nordic countries. This is similar to the country chapters as described above;
4. Part IV: The German-speaking countries (idem);
5. Part V: Honors in northern Europe: a comparative perspective. In this final part, the findings in the different countries will be compared and analyzed, learned lessons are shared and suggestions for further research are made.

Finally, the literature is included, as well as appendixes including key links, contact details of the different programs and one-page interviews with key persons involved in honors education.

The creation of this book is a truly internationally collaborative effort. Hundreds of contact persons at HEIs in 11 countries have responded to inquiries from the research team by phone or e-mail. Fourteen key persons from 7 countries were interviewed, and 20 local experts from all 11 countries have checked the chapters about their respective country. Apart from the author, one project leader, seven honors students and one cartographer have helped to prepare the manuscript.

In addition, three experts from the Netherlands have read and commented on the whole book. Four anonymous reviewers at Springer have given valuable comments on an earlier version of this manuscript. Professor Kevin Dean and honors alumnus Michael Jendzurski from West Chester University (USA) performed a final check on language and readability.

The research team found it a telling sign that most people that were approached for information were very willing to help. This is an indication of the need to share knowledge about this subject.

We see the primary audience for this book as scholars, researchers, policy makers, teachers and students involved in the subject 'excellence in education' in general and in higher education in particular. Hopefully this book inspires them to cooperate and learn from experiences in other countries.

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¹⁶**Note:** Literature used to prepare this book is included on this list. Some of the entries are in local languages and have not been read completely by the researchers. Instead, they have been searched with keywords to retrieve relevant information.

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Chapter 2

Developing Honors Education in Specific National Contexts

What exactly is an honors program and why are such programs developed? In this chapter we provide a working definition of an honors program and answer the question why honors programs are developed. We identify eight factors influencing the development of honors programs in a specific national context. These factors will be discussed and where possible, we will offer some basic statistics to facilitate characterization and comparison.

2.1 Defining Honors Programs

Defining an honors program is central for an inventory of such programs. Unfortunately, there is no simple definition. The American National Collegiate Honors Council (NCHC) has developed a list of 17 best practices that are common to successful honors programs and translated these into a set of 'Basic Characteristics of a Fully Developed Honors Program' (NCHC 2010). Not all these elements from the American context can be used for the (less-developed) European context,¹ but we have derived from the NCHC characteristics a number of basic requirements of an honors program, including the following:

- A clearly articulated set of admission criteria (e.g. Grade Point Average, a written essay, satisfactory progress, etc.) identifies the targeted student population served by the honors program. The program clearly specifies the requirements needed for retention and satisfactory completion;
- The program has a clear mandate from the institution's administration in the form of a mission statement or charter document that includes the objectives and responsibilities of honors;

¹ See Van Eijl et al. 2007, p. 71–72 for a list of main differences between American honors programs and Dutch honors programs.

- The honors curriculum meets the needs of the students in the program and features special courses, seminars, colloquia, experiential learning opportunities, undergraduate research opportunities, or other independent-study options.

Based on these requirements, an honors program must be selective (compared to the regular program), have clear admission criteria, a clear goal and feature special educational opportunities.

In the Netherlands, a similar list of requirements was developed by a group of researchers in 2007 (Van Eijl et al. 2007, p. 106). In a 2012 article for the NCHC journal, the authors used the following definition for the Dutch context: ‘honors programs are designed to offer educational opportunities that are more challenging and demanding than regular programs, and they are designed for motivated and gifted students who want more and have the capacity to do more than the regular’ (Wolfensberger et al. 2012, p. 149–150).

Combining the NCHC characteristics and this definition, we use the following working definition in this book:

Honors programs are selective study programs linked to higher education institutions. They are designed for motivated and gifted students who want to do more than the regular program offers. These programs have clear admission criteria and clear goals and offer educational opportunities that are more challenging and demanding than regular programs.

2.2 Types, Elements and Scales of Honors Programs

Honors programs exist in many different forms. Following Wolfensberger et al. (2012, p. 157), who made a typology based on their research in the Netherlands, we distinguish three types of honors programs:

1. Disciplinary programs, in which deepening the understanding of subjects, methodologies, and research within a discipline is the main goal;
2. Interdisciplinary programs, where the focus is on subjects and themes that include and go beyond different disciplines, and on interdisciplinary methodologies; and
3. Multidisciplinary programs, mostly in the form of liberal arts and sciences colleges, offering a full substitute for regular programs and a full honors bachelor’s degree.

These different types of honors education are also aimed at different kinds of talented students. Some students excel in just one area, but others can (and will) develop themselves in many areas (Györi 2012, p. 222–223). It is also important to recognize that honors programs are by definition out-of-the-ordinary, and therefore not every program will fit in the above typology.

The Dutch experience shows that most honors programs are first developed in the bachelor or undergraduate phase of higher education. The Sirius Programme subsidies first only focused on the bachelor phase and were later expanded to include master programs as well. Currently in the Netherlands, various HEIs feature honors

programs during the master phase, while in the United States and most other countries honors is mostly focused at the undergraduate student-body. Consequently, little information is present about honors in the master phase of education (Van Ginkel and Van Eijl 2010).² In this study, we explored the development of programs at both bachelor and master level.

Apart from the different types of honors programs, there is also wide variation in the content and structure of the programs, as they are designed from the vision on excellence of each independent institution. To be able to discuss and check the quality of the programs of institutions, the Sirius compass has been developed within the Sirius Programme. The compass is based on the experiences of participating HEIs and available literature, offering a framework for discussion, analysis and quality assurance. The compass includes six areas of emphasis: vision on excellence, organization and governance, teachers, education chain and relations with the labor market, creating communities and the added value of the initiatives.³ While research on excellence is not included as a separate element, it is envisioned to be implied in all six areas of the compass. Focus on all of these areas is needed in order to implement effective education to stimulate excellence.

Moving to the practical side of honors program, Van Eijl et al. (2007, p. 38–40) have developed a useful checklist containing 12 categories of different aspects of honors programs. These aspects include:

1. Mission/goals of the honors program
2. Program structure
3. Program content
4. Admission to program and target group (admission procedure/selection)
5. Honors teachers and their interaction with honors students
6. Further interaction within the honors program (formation of communities)
7. Feedback and assessment process in the honors program
8. Program size, position with respect to regular education and context
9. Reward (study results and reward for completion of program)
10. Evaluation (of the program)
11. Alumni (what are their future study/work careers)
12. Reception in the field (how is honors received in the fields of science, policy and business).

One aspect deserving extra attention concerns the position of an honors program in relation to the regular academic program. By definition, honors education is not an integral part of the regular academic program. But often, there is a close relationship to the regular program. In some cases, honors education takes shape as a direct extension of the regular program, for example by giving students extra

²Van Ginkel and Van Eijl made an overview of honors programs in the master in the Netherlands and also found some programs in other countries. They also recognized the lack of international information on the issue.

³See <http://www.siriusprogramma.nl/publicaties/het-sirius-kompas#.VLGINnvGiK0> for more information (Dutch only).

challenges directly related to regular courses. In other cases, the relationship is less direct, but the goals of the honors program are still tied to the academic curriculum.

While in Europe ‘extracurricular’ is an often-used term for any activity outside the formal program, the American tradition distinguishes between co-curricular and extracurricular activities. While co-curricular activities have some form of relationship to academic learning, extracurricular activities are not tied to course content or academic learning (see for example Darling et al. 2005⁴). Examples of co-curricular activities include study travel, debate competitions and academic project work. Extracurricular activities are for example social events, community service or sports events. In this book, we will use these terms according to American tradition.

Honors education in all its forms takes shape at different spatial scales. We structure the chapters in this book by country, as this spatial scale is especially relevant to understand the context in which honors education does or does not take place. Insight in the entry requirements for higher education will be provided in the various country chapters.

We do recognize that not all honors education is organized at the national scale and that programs have different scales of appeal. Most programs are organized by HEIs, per faculty, department or subject. While some programs might be set up by a HEI wishing to get a certain advantage in a regional competition for the best students, other forms of honors education have an international appeal. Indeed, some honors education is organized transnationally. We will mention this where relevant, but for the main analysis we stick to the national scale.

2.3 Talented and Motivated

Eventually all honors programs are meant for students who are talented and motivated to do something extra. How to define and find these students is a difficult question. The target group depends on the goals of the specific program, but in general programs are meant for the ‘best’ students. How ‘best’ is defined, is a choice laden with moral, political and scientific arguments and also very dependent upon the local context. In countries with strong egalitarian traditions, it may be difficult to present a program as meant for ‘the best’ students. In other countries, it may be well-accepted to select students on basis of grades, but the question arises whether this is the best way to identify talented and motivated students. There is no agreement among scientists about the best way to select students for an honors program. There is also no international agreement on terminology use. The term ‘honors’ is widely used in the Netherlands, but has not (yet) found its way to most other countries in this book.

⁴Explanation of the terms co-curricular and extracurricular can also be found on the website edglossary.org/co-curricular.

We will discuss the culture towards excellence in the different countries, including local terminology; and we will mention admission criteria used for the individual programs found. Often local terminology is linked to gifted education programs in primary and secondary education and their identification criteria.⁵ Therefore we will mention the existence of such programs and their terminology where applicable.

2.4 Reasons to Develop Honors Programs

Our definition of an honors program and our short discussion of the types, scales and target groups brings us to the next central question in this research: why are such programs developed?

Our starting point to answer this question is the Netherlands. According to Wolfensberger et al. (2012, p. 151⁶), all Dutch research universities were carrying out honors programs in their bachelor programs for four main reasons: first, the general trend of broadening of undergraduate programs which creates new opportunities for honors programs that allow for enrichment; second, an increased need for distinction among students in order to be admitted to prestigious masters; third, a new emphasis on talent in political discussions; and fourth, the momentum present because of the implementation of the (new) bachelor/master structure (*ibid*).⁷ The reasons to develop honors programs can be used to identify more general factors influencing the question whether these programs are developed.

Other researchers have also identified such factors (see for example Györi and Nagy 2011).⁸ Broadly speaking, these factors are either more ideological, or more institutional in nature. Ideological factors are closely related to national cultures and views on issues such as democracy and the organization of the civil society. These ideological factors translate into a specific organizational structure of the education system. This is the first of the institutional factors.

⁵See Eurydice 2006 for a European overview on terminology use.

⁶This article is an overview of Dutch honors programs for the Journal of the NCHC.

⁷Wolfensberger et al. concluded about the last reason that ‘considering the forward position of the Netherlands in the introduction of the bachelor/master system and in the implementation of honors, honors programs are likely to spread to other European countries as they adopt the system’.

⁸Based on their review of talent support programs in nine countries, Györi and Nagy they concluded that ‘many experts are of the opinion that the talent support options should be sensitive to the errors/deficiencies of society/the educational system, i.e. the components which may withhold non-average children from optimising their abilities. If mainstream education is not sensitive enough to individual differences, talent support must emphasise that aspect; if it cannot pay sufficient attention to personality or creativity development, then talent support programmes must stress that point’.

We identify eight factors influencing the development of honors programs in a specific national context. Moving from more ideological to more institutional factors, they are:

1. Culture towards excellence
2. Political views towards excellence
3. Educational philosophy
4. Structure and selectiveness of education system
5. Competition between institutions
6. Labor market conditions
7. National results in comparative research.

Finally, there is one factor that cannot be categorized as ideological or institutional:

8. Innovators and pioneers

In the remaining part of this chapter, we describe and explain these factors in more detail. While doing so, we also give some examples and/or relevant data regarding the specifics of these factors in the countries in this study.

2.4.1 Culture Towards Excellence

The culture towards talent, giftedness, excellence and other comparable concepts affects who is seen as talented or excellent (Freeman 2005), it shapes public discussion (see Laine 2010) and it reflects in the education system the values and talents that are considered important (Tirri 2007, p. 3). Therefore, it is very central to put a finger on the local culture in the countries studied. At the same time, this is very difficult because culture does usually not show in official documents and is hard to measure. Hofstede has tried to do this in his cultural dimensions theory, where systematic differences between national cultures were identified and partly expressed in numbers on four dimensions (Hofstede 1980), which was later expanded to six dimensions (Hofstede et al. 2010). One useful element for this research is the power distance index, which can be defined as the extent to which the less powerful members of organizations and institutions accept and expect that power is distributed unequally. Less power distance roughly translates into a more democratic and possibly egalitarian division of power.

Generally speaking, all countries in this book have some tradition of egalitarianism, especially compared to the USA. There are significant differences between the countries, however. The Nordic countries traditionally have the strongest egalitarian tradition (Persson et al. 2000; Persson 2009). In this culture, it is more difficult to talk about excellence than in countries where the education system focuses on the individual student. A supportive culture towards excellence enables teachers and students to stand out. The culture towards excellence within an HEI is often related

to the national culture towards talent development and excellence. We will elaborate on this factor in each individual country chapter and will summarize results in the concluding part.

2.4.2 Political Views Towards Excellence

The countries in this book have different state forms and political systems. There are also vast differences in the political organization of the education system, including legal provisions for differentiation in education and governmental (financial) support for talent development programs. Political views towards excellence can change over time and are most likely to change around elections. Talent development can be part of an economic agenda, for example to prioritize top sectors in order to keep up in a competitive international environment. Some countries clearly focus on a knowledge economy and therefore focus on an excellent education system. Talent development can also be part of a government's social agenda: giving maximum opportunities to all students, regardless of gender, socio-economic background or place of birth (migrant status) (Györi and Nagy 2011, p. 233).

There are regional differences in the extent of the influence of politics on education. This is closely related to the issue of scale. Education legislation in the Benelux and German-speaking countries tends to be inclusive. This means it contains general formulations on the rights of all children to adequate education, implying special provisions for the most able. The German-speaking countries are all federal or confederational and a lot of power is in the hands of the states and the cantons respectively. Regional differences in education policies exist and local politicians favoring excellence can make an impact. The Nordic countries have a more centralized form of government. Here, room for local initiatives is limited. There is a strict notion of 'equality and social collectivism at all levels of society', effectively hindering the development of honors programs (Persson 2009, p. 3–4).

2.4.3 Educational Philosophy

The traditions and culture of a country are reflected in its educational philosophy. This starts with the importance attached to education in general. One indicator for this importance is the public expenditure on education as a percentage of the country's GDP. Results are presented in Table 2.1.

In the Nordic countries and Denmark and Norway in particular, government is prepared to spend a large amount of money on education in general and tertiary education in particular. This willingness is connected to the specific culture regarding the goals of education.

Table 2.1 Public expenditure on education as % of GDP, 2010 (OECD 2013a, p. 218)

Country	All levels of education	Tertiary education
<i>OECD average</i>	5.8	1.4
Austria	5.9	1.6
Belgium	6.6	1.5
Denmark	8.8	2.4
Finland	6.8	2.2
Germany	n/a	n/a
Iceland	7.6	1.6
Luxembourg	n/a	n/a
Netherlands	6.0	1.7
Norway	8.8	2.6
Sweden	7.0	2.0
Switzerland	5.2	1.3

These goals are also closely related to the room offered to talent development programs. In equal opportunity cultures there is usually more room for talent development than in egalitarian cultures (Moon and Rosselli 2000; Mattsson 2013). As Swedish researcher Mattsson states: ‘In an *equal opportunity philosophy* the emphasis is on meeting the individual needs of different students. Regardless of background the students should have equal access to opportunities to develop their abilities and interests. Within an *egalitarian philosophy* on the other hand, education aims at creating similar outcomes for all students by providing all students the same educational experience’ (Mattsson 2013, p. 7).

One way to measure the outcome of this philosophical choice is by using indicators for ‘equity in education’. This is measured in the OECD program PISA (Programme for International Student Assessment).⁹ In the PISA reports, scores of 15-year olds on standardized tests in a large number of countries are presented every 3 years since 2000. All 11 countries in this study take part in PISA and the results are taken very seriously (more about PISA in general in Sect. 2.4.7 below).

In the PISA report, equity in education is defined as providing all students, regardless of gender, family background or socio-economic status, with opportunities to benefit from education. This does not imply that everyone should have the same results. It does mean, however, that students’ socio-economic status or the fact that they have an immigrant background has little or no impact on their performance, and that all students, regardless of their background, are offered access to quality educational resources and opportunities to learn.¹⁰ In the PISA report, equity scores for countries are calculated, mostly based on the pupils’ mathematics scores. A low percentage of variance in mathematics performance explained by socio-economic status (see Table 2.2) points to more equity in education (OECD 2013b, p. 16).

⁹ Publication of the PISA report is organized by the Organisation for Economic Cooperation and Development (OECD).

¹⁰ Full explanation and all data can be found in OECD 2013b.

Table 2.2 Equity in education in PISA 2012 (OECD 2013b, p. 15)

Country	Mathematics mean score	Percentage of variance in mathematics performance explained by socio-economic status
<i>OECD average</i>	494	14.6
Austria	506	15.8
Belgium	515	15.0
Denmark	500	16.5
Finland	519	9.4
Germany	514	16.9
Iceland	493	7.7
Luxembourg	490	18.3
Netherlands	523	11.5
Norway	489	7.4
Sweden	478	10.6
Switzerland	531	12.8

Overall, Finland is considered by the OECD to score best among the countries in this study, with both a high mean score and a low percentage of variance explained by socio-economic background. Norway and Iceland score best when looking just at the socio-economic variable, followed by Sweden, the Netherlands and Switzerland.

A ‘good’ score on the equity variable is probably welcome in a country with an egalitarian philosophy. But the equity score says little about the relationship between the educational philosophy and talent development. There is also another score, called ‘resilience’ by OECD. This is defined as the ‘percentage of disadvantaged students who perform among the top 25 % of students across all participating countries and economies, after accounting for socio-economic status’. Basically, a high score means that many students ‘beat the odds’ and score better than could be expected of them because of their background. Resilience scores in PISA 2012 are shown in Table 2.3 and compared to the scores in PISA 2003. A negative trend means the percentage of resilient students has dropped between 2003 and 2012.

Interestingly, scores are well below the OECD average for all the Nordic countries (except Finland), while the egalitarian educational philosophy in these countries is supposed to promote resilience. The scores are therefore subject to public and political debate in these countries. Finland is also worried. It still scores above average, but has seen the largest drop in the percentage of resilient students among the countries included in this research (−3.3 %). Switzerland scores highest on resilient students and has an upward trend since 2003. Germany has the strongest upward trend, with the score rising 1.3 % to an above-average 7.5 %. The Netherlands scores well above average, but has a downward trend.

All in all, an educational philosophy is difficult to define and hard to measure. However, in the country chapters we will try to indicate the basic ideas and traditions regarding education, before discussing the specific form of the resulting education system.

Table 2.3 Resilience in education in PISA 2012 and change since PISA 2003 (OECD 2013b, figure II.2.2)

Country	Percentage of resilient students, 2012	Trends in the percentage of resilient students, 2003–2012
<i>OECD average</i>	6.5	-0.3
Austria	6.2	-0.6
Belgium	8.1	-0.2
Denmark	5.0	-1.8
Finland	8.2	-3.3
Germany	7.5	1.3
Iceland	5.3	-1.7
Luxembourg	6.1	-0.1
Netherlands	8.7	-1.8
Norway	5.4	1.1
Sweden	4.4	-2.9
Switzerland	10.0	0.7

2.4.4 *Structure and Selectiveness of Education System*

We now move to more institutional factors. This includes the level of differentiation in primary and secondary education, the selectiveness of higher education in general and admission requirements and tuition fees in particular.

Over the past few decades, the dominant norm governing access to European HEIs was that of providing equal opportunities. A good education should be accessible to everyone. However, starting points are not the same for all students, as some come from less privileged backgrounds. The ‘equal opportunity’ view therefore usually acknowledges the idea that ‘merit-based admission needs to be augmented by some form of affirmative action’ (Clancy and Goastellec 2007, p. 139), in order to ensure that the national elite in terms of education is drawn from all social classes. In other words, special measures are taken to promote equity in education. How this works out in admission procedures, depends on national traditions. The view towards the desired level of selectiveness of higher education can also change over time. Over the last few decades, access to higher education has become available to many more Europeans and in some countries, this has led to an explosive growth of the higher education sector (see also Sect. 2.4.5). This might necessitate a change in the organizational structure of the system. Especially in such times of change, the development of honors programs might be facilitated. Honors programs can also serve another purpose in the wider higher education system. Evidence from the Netherlands shows that honors programs ‘have functioned as laboratories of educational innovation within university-wide curricula and had positive spin-off effects on the regular curriculum and also on the transfer of talented students from secondary into higher education’ (Wolfensberger et al. 2012, p. 149).

Another process influencing the structure of education systems is the Bologna Process. Throughout Europe, the Bologna Declaration (1999) has led to great changes in the structure of higher education. In different countries, governments

have seen the Bologna Process ‘as a tool to challenge extremely strong national or, as in Germany, regional structures in the university system’ (Culver and Warfvinge 2013, p. 11). This is also relevant to the development of honors programs. As the structure had to be changed anyway, the opportunity was sometimes seized to develop honors education, especially in the Netherlands.

An important goal of the Bologna Process has been to increase the transparency of the credit system, now measured in the European Credit Transfer and Accumulation System (ECTS). The credits that can be earned are generally referred to as ECTS credits. Usually students can earn 60 ECTS per academic year.

Another very important part of the Bologna Process is the harmonization of the qualification system in the so-called three-tier system. In this system, there are three cycles of higher education. The first is a bachelor phase, the second a master phase and the third a Ph.D. phase. The three-tier system has now been introduced in all countries in this book, but it is not spread in a uniform manner. The traditional national views about starting qualifications on the labor market are still strong. In some countries students are considered ready with a bachelor diploma, while in others it is highly unusual to leave higher education without a master diploma. This is shown in Table 2.4.

In countries such as Austria and Denmark, it is traditionally highly unusual to enter the labor market with a bachelor’s degree. Most students continue into a master program. In other countries, such as Norway, a bachelor degree is seen as a good starting qualification on the labor market. Here, continuing in a master program is seen as selective. From a Norwegian point of view, this might lessen the ‘need’ to develop (selective) honors programs at this level. In the country chapters, the structure of the national education system will be described and the impact of this structure on the room for excellence in general and honors programs in particular will be discussed.

Table 2.4 Progression of students in higher education (European Higher Education Authority country reports 2012)

Country	% of bachelor graduates continuing in master ^a	% of master graduates continuing in Ph.D.
Austria	83 % ^b	34 %
Belgium (Flemish community)	25–50 %	8–10 %
Belgium (French community)	25–50 %	n/a
Denmark	84.5 %	11 %
Finland	50–75 %	n/a
Germany	50–75 %	n/a
Iceland	10–25 %	<10 %
Luxembourg	75–100 %	n/a
Netherlands	10–25 %	12 %
Norway	23 %	14 %
Sweden	25–50 %	6 %
Switzerland	50–75 %	20 %

^aWithin 2 years of graduation from bachelor program

^bPercentage for public universities

2.4.5 *Competition Between Institutions*

In many countries, funding education institutions is based on student numbers, which means there is an incentive to attract more students. From this point of view, the promotion of excellence can be framed as a central strategy that will help HEIs to prosper in an increasingly open and competitive environment (Frølich and Stensaker 2010, p. 359).

Among the countries in this book, there are huge differences in the (development of) participation of the population in higher education (see Fig. 2.1 and Map 2.1), although they have all experienced growth between 2002 and 2011.

The selectiveness of entry is a relevant factor. This may be due to high admission standards, restricted numbers of student seats and/or tuition fees. We will see how recruitment and admission is organized in the country chapters and come back to this issue in the concluding chapters.

In some countries participation in tertiary education has increased enormously over the last decade. Data are shown in Table 2.5.

In all countries, participation rates have gone up, but significant differences exist. Austria, Luxembourg, the Netherlands, Iceland and Switzerland have seen increases of 40 % or more, while in Finland and Norway the proportion of students hardly changed (see UNESCO 2011).¹¹ The exact reasons for the increase in participation rates fall beyond the scope of this book. However, in general, countries strive to get a highly-educated population and changes can be the result of political decisions.

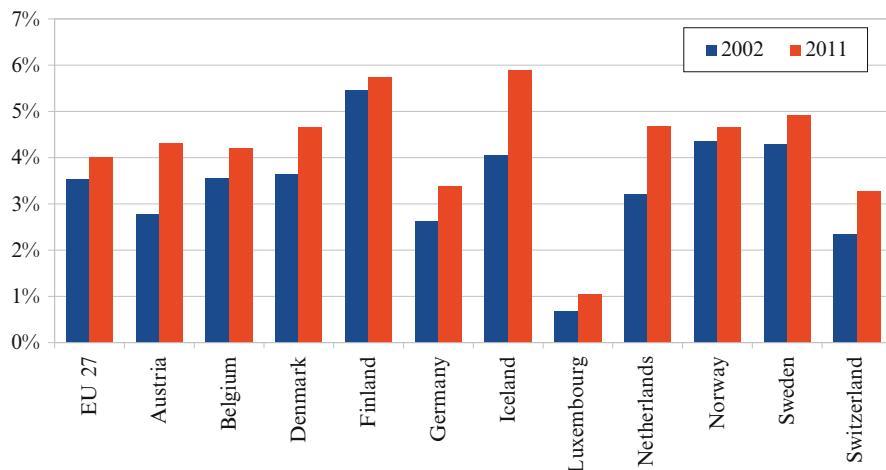
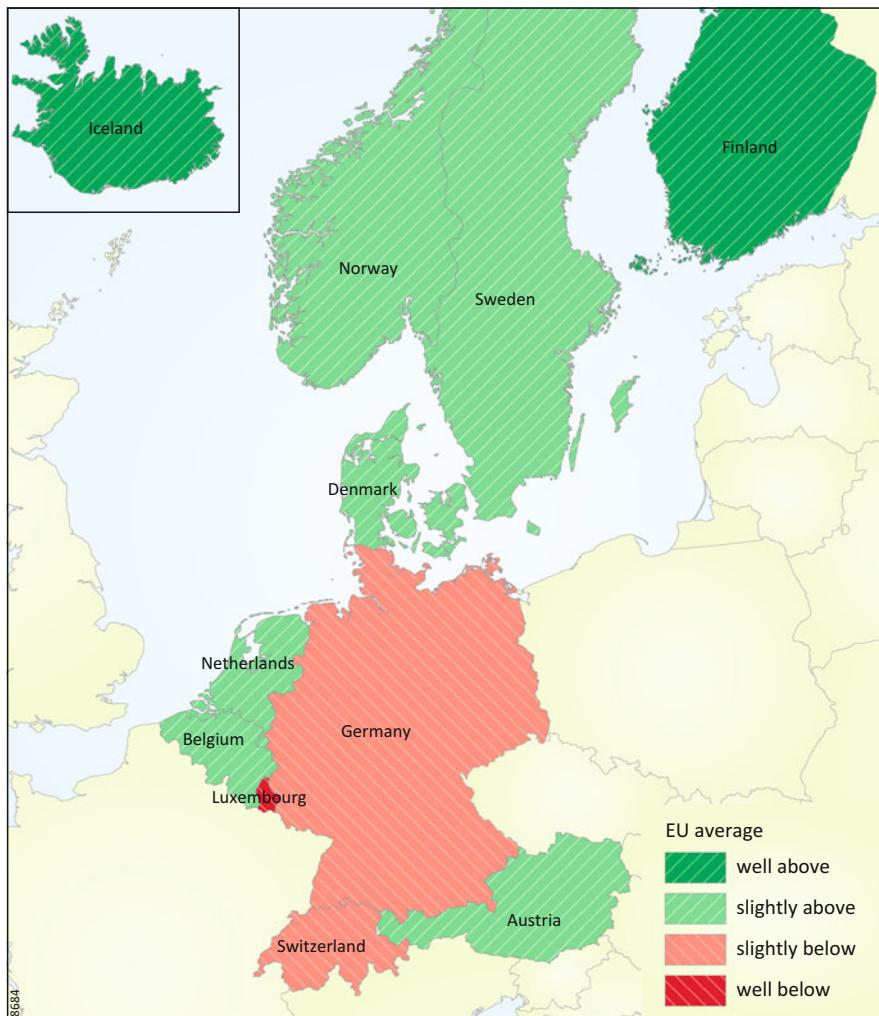


Fig. 2.1 Population in tertiary education (ISCED 5–6) as % of total population, 2002–2011 (Eurostat 2014, own calculation)

¹¹Please note that tertiary education is defined as ISCED level 5–6, which includes bachelor/master/Ph. D. education, but also short-cycle tertiary education that is more practical in nature.



Map 2.1 Participation in tertiary education as % of total population, 2011, compared to EU average (Eurostat 2014)

Opposing views of higher education as elite education or mass education can be the subject of intense debate. Mass participation in higher education may increase the need for differentiation within higher education and thus foster the start of honors programs.

Another relevant set of data with respect to the competition between HEIs is its performance on international rankings, such as the Academic Ranking of World Universities Top 500, better known as the Shanghai list and the Times Higher Education World University Rankings. While mostly based on research performance, these rankings are also used by HEIs in marketing efforts to attract new

Table 2.5 Growth in participation in tertiary education (ISCED 5–6), 2002–2011 (Eurostat 2014, own calculation)

Country	Growth in participation in tertiary education, 2002–2011 (corrected for population growth) (%)
<i>EU average (27 countries)</i>	13.4
Austria	55.2
Belgium	18.1
Denmark	28.0
Finland	5.0
Germany	29.0
Iceland	45.8
Luxembourg	56.2
Netherlands	45.9
Norway	7.2
Sweden	14.5
Switzerland	39.7

students. A university with excellent results on such a ranking, can adopt a strategy to attract excellent students more easily. International comparative research also makes an impact at the national level. This will be discussed below under factor 7. There, we also provide more details about university rankings.

2.4.6 *Labor Market Conditions*

The economic crisis of the last few years has made an impact on all the countries in this book, but the picture is varied. Norway – with large oil reserves – has been able to keep a low unemployment rate, while in countries such as Belgium and the Netherlands unemployment has risen significantly.¹²

Skills that are valued on the labor market differ per country and over time. Of course institutions operate in an economic reality, which means they will take account of their students' chances on the labor market after they finish their studies. Governments have labor market strategies to ensure the best match between the education system and labor market demands is made. In unfavorable labor market conditions, students themselves can also experience an increased need to stand out from the crowd. Economic conditions and strategies to deal with these conditions are relevant for honors programs. For example, HEIs can seek close cooperation with the private sector to prepare students for 'the real world'. Companies can also take the initiative to cooperate with successful institutions and seek direct contact with talented students. This is especially the case in sectors and economic conditions where talent is scarce and a 'war for talent' is raging, as it was called in a 2001

¹²Data on GDP per capita and unemployment rates were presented in table 3.1.

American book.¹³ Labor market conditions can differ between regions and countries and honors education can also be developed as a measure to prevent regional or national ‘brain drain’. In problematic labor markets both institutions and students might feel more urgency to be exceptional and have talents recognized. Situations where the educational system and the labor market situation do not match can provide an incentive to develop and participate in honors programs.

Also, some programs heavily rely on the private sector. Funding from this sector can be important for the development of talent programs, but this can get endangered in times of crisis. There can even be a direct relationship between honors education and sectoral development on the labor market: if a certain sector performs poorly, sectoral support for an honors program can be withdrawn as a budget cut-back measure.

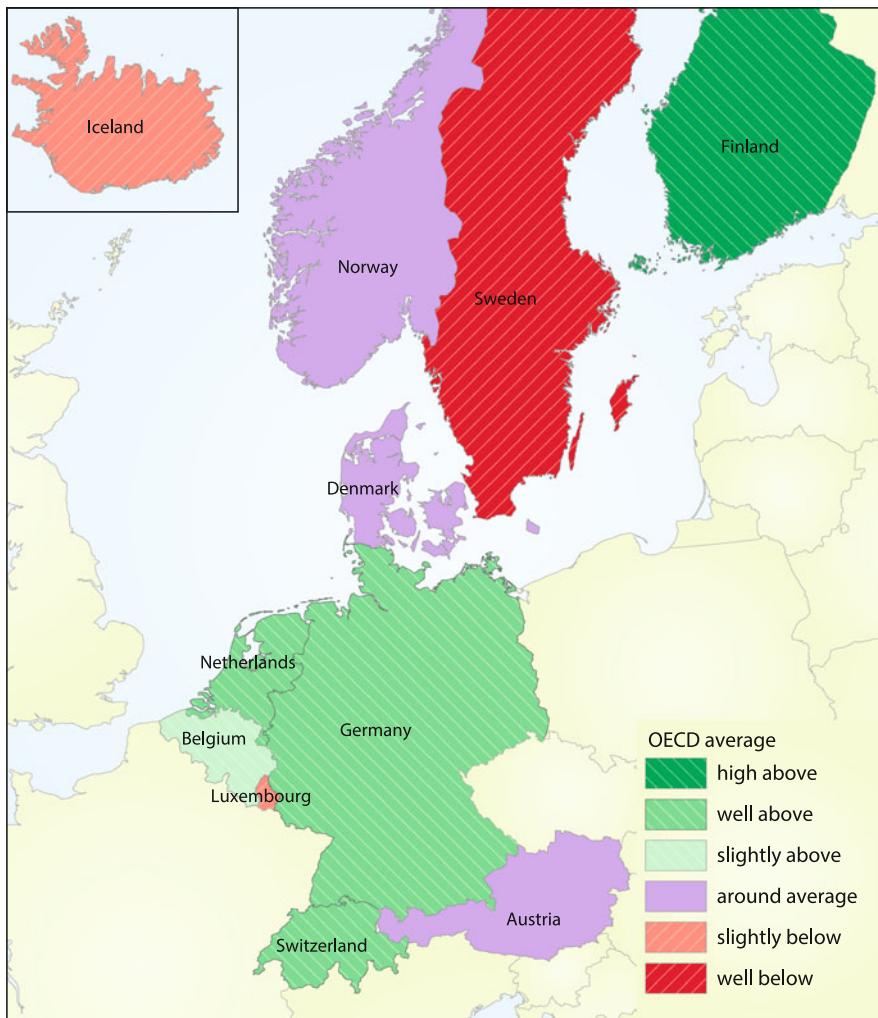
2.4.7 National Results in Comparative Research

Evaluation of educational achievements in international rankings is important for individual HEIs, as seen in our discussion of competition between HEIs (factor 5) above. But results in comparative research are also very relevant at the national level. Negative developments in high-regarded comparative education reports can be an incentive for change. The performance of national education systems is assessed in different ways. A number of international comparative rankings are well-known in both academic and public debates. For secondary education, the best-known report is OECD’s PISA (Programme for International Student Assessment).¹⁴ All the countries in this book take part in PISA, which examines 15-year-old’s performance in three subjects: mathematics, reading and science. The 2012 results, which were released early December 2013, are presented on Map 2.2. Details of scores in the 2012 report and a comparison with results from the 2003 report are shown in Table 2.6.

From the PISA results, it immediately becomes clear that Sweden is not doing well. It now has the lowest scores in all subjects and has dropped from fifth to last place among the 11 countries in this study. Iceland and Luxembourg are also below the OECD average in all subjects, and Norway in mathematics and science. Especially in Sweden this has led to intense discussion in media and among politicians about ways to improve results. One way would be to make the education system more ‘open’ to excellence initiatives. Finland, the Netherlands and Switzerland have good overall scores in all subjects. Still, the Finnish scores raise concern in the country: although it maintains its top position among the 11 countries in this research, scores have dropped significantly since 2003. In the Netherlands, deeper analysis of the scores shows that relatively few students reach the highest

¹³The book ‘The war for talent’ by Ed Michaels, Helen Handfield-Jones and Beth Axelrod was released in 2001 by Harvard University Press and was heavily debated in the following years.

¹⁴Publication of this report is organized by the Organisation for Economic Cooperation and Development (OECD). For more explanation, see factor 2 above.



Map 2.2 PISA scores 2012, compared to OECD average (Country score is calculated by adding PISA scores in maths, science and reading and comparing them to the OECD average of 1,491) (OECD 2013b)

scores. This was cause of concern for the government and one of the reasons to develop new policies to stimulate talented children in primary and secondary education (see Rijksoverheid 2014). Finally, Germany has shown the greatest improvement in scores between 2003 and 2012.

Moving to higher education, research university performance is calculated in different international rankings. We use two of the best-known rankings to give an indication of the performance of the countries' university system: first, the Academic Ranking of World Universities Top 500, better known as the Shanghai list (ARWU 2013); and second, the Times Higher Education World University Rankings (2014).

Table 2.6 Educational performance in PISA, 2003–2012 (calculations based on OECD 2004, 2013a, b, Education GPS)

Country	PISA scores, 2012 ^a	PISA rank, 2012 ^b	PISA scores, 2003	PISA rank, 2003	Change in scores, 2003–2012 ^c
<i>OECD average</i>	<i>494 + 496 + 501</i>	–	<i>499 + 494 + 496</i>	–	+2
Austria	506 + 490 + 506	6	506 + 491 + 491	8	+14
Belgium	515 + 509 + 505	5	529 + 507 + 509	3	–16
Denmark	500 + 496 + 498	7	514 + 492 + 475	9	+13
Finland	519 + 524 + 545	1	544 + 543 + 548	1	–47
Germany	514 + 508 + 524	4	503 + 491 + 502	7	+50
Iceland	493 + 483 + 478	10	515 + 492 + 495	6	–48
Luxembourg	490 + 488 + 491	9	493 + 479 + 483	11	–14
Netherlands	523 + 511 + 522	2	538 + 513 + 524	2	–19
Norway	489 + 504 + 495	8	495 + 500 + 484	10	+9
Sweden	478 + 483 + 485	11	509 + 514 + 506	5	–83
Switzerland	531 + 509 + 515	3	527 + 499 + 513	4	+16

^aPISA score = maths score + reading score + science score in PISA 2012

^bPISA rank = Rank among 11 countries in this study based on added total of scores. This is only an indication of a country's relative score

^cChange in scores is calculated by taking the added total of 2012 scores and subtracting the added total of 2003 scores. This is only an indication of a country's relative performance

Main difference is that the Shanghai ranking is mostly based on quantitative research data (such as publication statistics), while the Times ranking makes use of a broader set of data. While focus in the Times list is still on the universities' research performance, 30 % of a university's score is based on teaching performance.¹⁵ Results are shown in Table 2.7.

From the scores, it is clear that most research universities in the Netherlands, Sweden and Belgium are included in the Top 500. The percentage of universities reaching the Top 400 or 500 is less 'overall good' for other countries. The rankings give little information about the quality of teaching at the universities and do not include universities of applied sciences, but still these rankings are usually taken very seriously by policy makers in both HEIs and governments.

2.4.8 Innovators and Pioneers

The effect of individual efforts is a highly relevant factor for the development of honors programs, in fact pioneers and innovators play a key role in the initiation of programs. Early adapters in higher education staff are needed to start the development of a program. These pioneering talent support actors are often idealistically

¹⁵ See ARWU 2013 and Times Higher Education World University Rankings 2014 for more details about the methodology behind these rankings.

Table 2.7 Performance of research universities in university rankings per country (ARWU 2013; Times Higher Education World University Rankings 2014; Eurydice 2014)

Country	No. of research universities	Entries in top 500, 2013 Shanghai list	Highest rank on Shanghai list	Entries in top 400, Times list	Highest rank on Times list
Austria	22	7	151–200 (Vienna)	6	170 (Vienna)
Belgium	11	7	85 (Ghent)	7	61 (KU Leuven)
Denmark	8	4	42 (Copenhagen)	5	117 (DTU)
Finland	14	5	76 (Helsinki)	5	100 (Helsinki)
Germany	106	38	50 (TU Munich)	26	55 (LMU Munich)
Iceland	7 ^a	–	–	1	251–275 (Iceland)
Luxembourg	1	–	–	–	–
Netherlands	14	12	52 (Utrecht)	13	67 (Leiden)
Norway	8	4	69 (Oslo)	4	185 (Oslo)
Sweden	14	11	44 (Karolinska)	10	36 (Karolinska)
Switzerland	12	7	20 (ETH Zurich)	8	14 (ETH Zurich)

^aIn Iceland no differentiation is made between different types of higher education

motivated and ‘seem to be fully aware of their *social responsibility* concerning the fate of talented individuals’ (Györi and Nagy 2011, p. 232). While efforts of dedicated individuals are necessary to develop honors programs, this is impossible to find in statistics. This factor will therefore be discussed in the country chapters where relevant.

2.5 Discussion

The eight factors discussed above not only influence the development of honors programs. Partly, they also shape the forms these programs might take. But participating students and staff also play an important role in the specific form a program takes. Also, programs usually develop and change over time. The reasons for students to join honors education may be related to the factors above, but students can also have many other motives, such as the desire to undertake a personal challenge or simply a personal interest in the subject matter. These motives are an interesting research topic, but as we focus on finding and describing programs, this falls outside the scope of this study.

We will now start to discuss the situation in the individual countries. However, first we need to make one more general remark. The reasons to develop a program not always become clear in official documents issued by the organizing HEI. Mission statements are often written after the start of a program, and strongly reflect the desired outcomes of the program rather than the (practical) reasons to start the program. In a review of mission statements of honors programs in the USA, Bartelds et al. also found that ‘a connection between mission statement, performance indicators, and program assessment is not clearly visible’ (Bartelds et al. 2012, p. 141).

Their lesson for other countries is that they ‘might do well to build such an alignment into the design of their programs’ (ibid). We will see in the coming chapters if this is the case in Europe and come back to this issue in the concluding part.

However, before moving to the specific national contexts, we will first explain the methods used in this study and the limitations in the next chapter.

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¹⁶**Note:** Literature used to prepare this book is included on this list. Some of the entries are in local languages and have not been read completely by the researchers. Instead, they have been searched with keywords to retrieve relevant information.

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Chapter 3

Methods and Limitations

3.1 Methodology

The main aim of this book is to present an overview of the available information about educational offers for talented students in higher education in 11 European countries and place it in the relevant local educational and societal context with regard to excellence.

The research team, apart from the author, consisted of a project leader and seven honors students and alumni, who worked on the gathering of data from different countries. They were all instructed about the background of the research and the definitions used.

At the start of this project, the team had little idea what info could be found. Especially in the starting stages, cues and clues to information were found in different ways. The gathering of data was structured, as described below, but readers should keep in mind that this book is based on explorative research.

Scientifically, its main aim is to open up new information and make informed suggestions for further research, delving deeper into different aspects of honors education in order to spread knowledge about the subject among honors educators, students, policy makers and others involved in higher education.

Apart from general and theoretical information already discussed, the information in this book is divided into two types:

1. Information about the (clusters of) countries in this book, their education system and culture and policy towards stimulating excellence; and
2. Information about individual honors programs within higher education institutions.

For each type, we gathered data in various ways. Initial insights were gained through personal contacts and experience, scientific literature searches and targeted web searches. Subsequently, we contacted hundreds of people at higher education institutions or otherwise involved in higher education, to get background information

on certain aspects of the education system, to check if programs were present and/or to get practical details about specific programs. These professionals were first contacted through e-mail and if necessary later by phone.

In addition, we have undertaken 14 interviews with key informants, who were found through official information sources and/or personal networks. Phone or Skype conversations ranging in length from 30 to 90 min were recorded and transcribed. This forms the basis of the interview texts that are being used throughout the book. Sometimes information first gathered in an interview was supplemented by information from reports or e-mails. The data gathered through such interviews are referred to as ‘personal communication’ in the notes. If a longer interview is available, it is referred to in the notes. A list of interviewees and interview summaries can be found in Appendix 4.¹

Seven honors students and alumni from different HEIs have helped to gather information, and have written preliminary versions of chapters of this book. Twenty local experts from all 11 countries have helped to check for correctness and completeness of information. All contributors are mentioned in the acknowledgements section.

3.2 Education Systems

To facilitate comparison across education systems, we mostly used openly available and well-known information sources, offering a comparative perspective. To study the education systems in the countries in this book, the Eurydice encyclopedia from the Eurydice Network of the European Commission was an important first source (Eurydice 2014). Also, the Country Reports of the UNESCO International Bureau of Education (IBE) were used, as well as the OECD’s PISA reports about 15-year-olds’ educational achievements and the country reports supplied to the European Higher Education Area (EHEA). Information about government policies was found on government websites and in scientific literature and has also been topic of discussion in interviews with key informants.

Our description of the national education systems in the country chapters is based on different sources. European countries have set up a common encyclopedia in which they describe their whole education system: Eurypedia.² The structure of the national education system is shown in a standardized diagram. We use these diagrams in the individual country chapters to provide a general picture of the complicatedness of the national education system.

¹In addition, information that could not be found in available sources and that was received by e-mail from specific contact persons at HEIs, is also referred to as ‘personal communication’.

²The Eurypedia encyclopedia is updated constantly. For this book, data were gathered in the period November 2013–April 2014, and references to Eurypedia were checked once more in May 2014. Later changes have not been included.

Attached to these diagrams is an extensive standardized legend and explanation. Below, the diagram for Norway is shown as an example (Fig. 3.1a). At the top of the diagram, ages of pupils are shown and the red bar shows the extent of compulsory education. The colors refer to different ISCED levels. ISCED is an international system used to classify types of education, developed by UNESCO.³ The blocks show the types of schools available and their local names. In the Norwegian example, there is a single-structure education up to the age of 16, after which there are two types. The tertiary education structure (in green) is shown to the right and is not attached to age.

Fig. 3.1b shows the standardized legend for all Eurypedia diagrams. In the individual country chapters, the standardized legend will not be shown again, as it can be looked up here.

3.3 Programs per Higher Education Institution

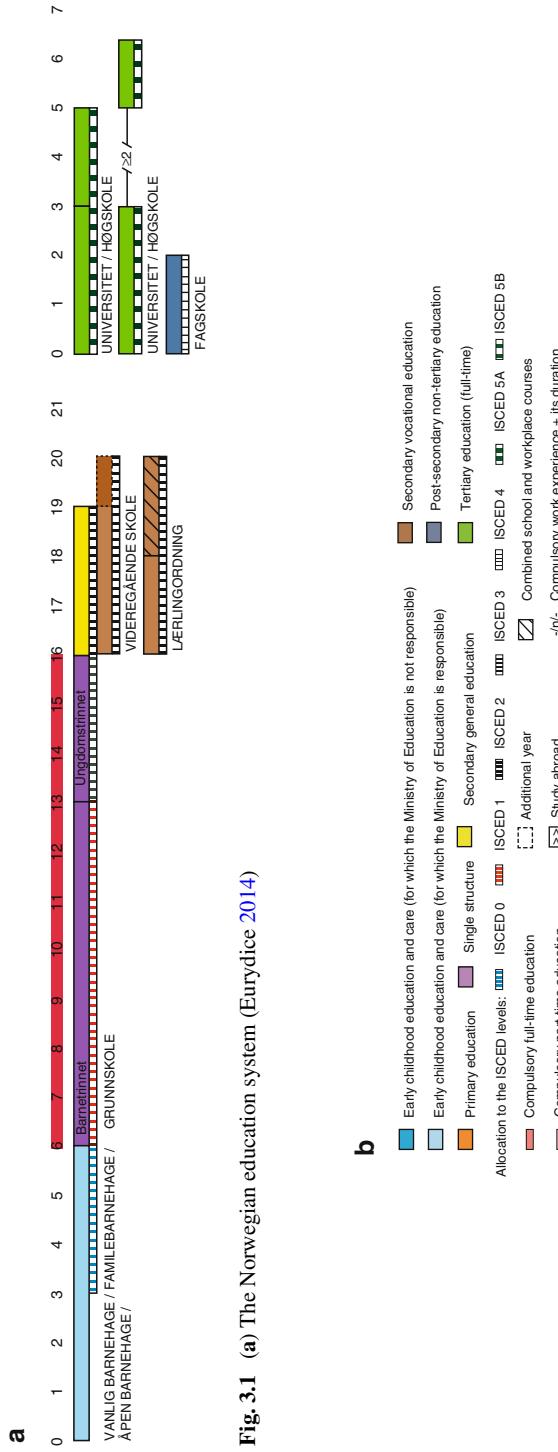
In order to learn more about individual programs per HEI, we have used the websites of research universities and universities of applied sciences using local terms for honors education. Our first focus was on research universities, as our experience from the Netherlands is that honors programs are first developed at these HEIs. We have studied the research universities in all countries. Depending on the local relationship between different kinds of institutions in the higher education system and our findings at the research universities, we extended our search to universities of applied sciences or university colleges in a number of countries.⁴

Generally speaking, we extended our search to specialized university colleges or universities of applied sciences that do not have an exclusive regional focus. However, specific local situations sometimes necessitated other choices. In practice, this means that:

- in the Netherlands we included all research universities and all government-funded universities of applied sciences (*hogescholen*);
- in Belgium we included all research universities, but excluded the university colleges (*hogescholen*) and colleges (*Hautes Ecoles*) and art colleges;
- in Luxembourg we included the only university;
- in Denmark we approached the universities and university colleges (*professionshøjskole*), but excluded vocational short-cycle higher education (*erhvervsakademi*);

³ More information can be found at www.uis.unesco.org/Education/Pages/international-standard-classification-of-education.aspx

⁴ In some countries, the difference between a research university and other more vocationally oriented institutes of higher education is very small (for example Iceland), while in others differences are huge (for example the German-speaking countries). This difference can be expressed in legal definitions, but it is also part of local academic tradition.



- in Norway we included the research universities and specialized university colleges, but excluded the ‘regular’ regional university colleges;
- in Sweden we approached the universities and the state university colleges (*högskolor*);
- in Finland we approached the universities, but excluded the polytechnics (*ammattikorkeakoulu* or *AMK*);
- in Iceland we approached all HEIs (Icelandic law does not differentiate between universities and other HEIs);
- in Germany we approached all universities, but excluded the universities of applied sciences and/or arts (*Fachhochschulen*);
- in Austria we included all universities, but excluded the universities of applied sciences (*Fachhochschulen*);
- in Switzerland, we included all tier-one universities and recognized universities of applied sciences (*Fachhochschulen*), but excluded the (unrecognized) private universities.

The specific choices are explained in the respective country chapters.

In total, information was sought about special provisions for talented students at 303 higher education institutions, 251 of which are outside of the Netherlands. We asked the HEIs if they had any special provisions for talented students and gave them our working definition of an honors program, adding that in the Netherlands these programs are usually called honors programs, but different terms are in use in other countries.

We first approached the HEIs by e-mail, using published e-mail addresses of either international offices or communication/press offices where available, or general e-mail addresses if no appropriate other address could be found. If necessary, reminder e-mails were sent and HEIs were contacted by phone.

The response rate was very high. All institutions from the Nordic countries (Denmark, Sweden, Norway, Finland and Iceland), and the Benelux countries of Belgium and Luxembourg responded. In Germany, all but three of the 110 universities provided information. For Austria and Switzerland different existing information sources were used, explained in the respective country chapters. In the Netherlands, out of the 52 HEIs studied, only one university of applied sciences did not provide an answer.

In addition, all key informants in 14 longer interviews were asked about their knowledge of existing programs. In e-mail or phone conversations with other contact persons at HEIs, we also asked about their knowledge of programs. Furthermore, names of key researchers in gifted education with a focus on higher education were entered in Google Scholar, in order to find scientific publications about such programs.

Once a program was found, we gathered as much information as possible, keeping in mind the checklist by Van Eijl et al. (2007), which was discussed in Chap. 2. However, in the timeframe of this research project it was not possible to gather information about all categories on the checklist. We decided to focus on structure, size, content, admission, target group and reward of the program; as well as

practical data such as websites, names of coordinators and contact details. We also tried to establish a starting date.

We did not find information on all of these aspects for all programs, especially for the ones that were established relatively recently. However, the checklist proved useful to structure the information collection process.

We also encountered some difficulties in establishing the number of participants in honors programs. Sometimes this information was not available at all, sometimes there were only numbers about participants entering in a certain year and sometimes we had a total number of participants. In other cases, programs are just starting up, or the number of participants varies widely per year. We have indicated this in the tables with program descriptions throughout the country chapters.

We hope more in-depth research on all aspects of various honors programs in Europe will be conducted, in order to define success and fail factors of honors education.

We decided to make descriptions of programs outside the Netherlands comparable by putting the main characteristics in a standardized table. For the Dutch programs this was not possible, as there are too many to include individually. Therefore we decided to make a limited description of the Dutch honors education on offer per HEI. In addition, we give one example of a specific program per HEI. For all 11 European countries included in this research project we made lists of links to program websites and contact persons per honors program, which can be found in Appendix 3.

3.4 Including and Excluding Programs

Throughout the period of data gathering, choices had to be made what to include and exclude in the book. This proved especially difficult with regard to individual programs. Although we had a working definition of an honors program, it was not always clear whether certain programs that were found could actually be called honors education. This is a challenge also encountered by other researchers trying to identify talent support programs (Györi and Nagy 2011, p. 234–235; see also Van Eijl et al. 2005; Wolfensberger et al. 2012b). Some examples leading to discussion between researchers involved in this project were:

- A private education institution that runs a highly selective program and is well respected in its field, but does not issue officially recognized diplomas as HEIs in the public system do. We excluded this program on the basis that it is not officially part of the higher education system;
- Twin bachelor programs. By taking some extra subjects, students can obtain two diplomas in fields of studies that are somewhat similar, for example mathematics and physics. While special educational provisions might have been made to facilitate this, we still excluded this because it is not a program with its own goals, and students are awarded two diplomas for their efforts;

- International double degree programs. A number of universities, especially in international business and economics, offer double degree programs where students can take courses at two universities and receive two diplomas. Most of these are organized within networks of specialized business schools or universities.⁵ These programs are not discussed in the individual country chapters, as they issue double regular diplomas and not a special honors diploma.
- We also found the international CEMS-MIM program,⁶ which offers an extra international master diploma to students in business-oriented study programs. This program is excluded from the main text because it is not organized by an individual higher education institution. However, it does offer extra opportunities for talented students and we will therefore briefly discuss it in boxed text 3.1.

Box 3.1: The CEMS-MIM Program

Many extra motivated and talented students spend part of their studies abroad. For example, they might apply for highly competitive scholarships to prestigious universities in the USA or in the UK. However, their home university might also organize or take part in an international program targeting talented students. This is the case at a number of HEIs throughout the countries in this book, mostly in the field of economics or international business.

The best-known of these programs is CEMS-MIM. This is a 1-year post-graduate, pre-experience degree program in International Management. It is open to a select group of students enrolled in a master's programme at one of the 29 universities in the CEMS Alliance. The program includes at least one semester abroad at one of the other CEMS institutes. Students who complete the program successfully will receive a special CEMS-MIM diploma, apart from the regular master's degree at their home institution.

3.5 Limitations

The methods described above imply a wide search for information. However, they also have their limitations. Two important limitations we encountered were language barriers and terminology trouble. Apart from that, the Dutch background of the research team and the fact that we did not perform fieldwork are also relevant factors in the data gathering process.

⁵ For example, NHH (Norwegian School of Economics) cooperates with six partner universities in countries varying from Belgium to Mexico. Participating students are selected on the basis of grades, English proficiency and motivation, which is assessed in an interview. Successful applicants follow a 2-year program at NHH and the partner institute, which leads to two degrees: one at NHH and one at the partner institute.

⁶ More information at www.cems.org/mim

First of all, a lot of information was available only in local languages.⁷ This applied to both policy information from government websites and information about individual programs. While most HEIs have an extensive website in English, information about honors programs was often only available on the local-language homepage.⁸

Second, the terminology used in the various countries differs. The variety was even greater than expected and the political and social impact of terminology use was underestimated. There is also no terminology agreement among scientists. The most commonly used terms refer to the concepts ‘gifted’ and ‘talent’, but they are defined in various ways (Mattsson 2013, see also Eurydice 2006). Excellence is also used, although some label this as a non-academic term (Persson 2014).

Similar terminology trouble is associated with the terms ‘college’, ‘university college’ and ‘honors college’. In the American honors tradition, an honors college is usually a residential college with its own dean. Here, a full undergraduate study program is offered, often amounting to a work load of 4 years of full-time study. In the Netherlands, there are a number of residential honors colleges similar to this American model (although they usually offer 3-year programs), but also a number of other extracurricular or co-curricular programs that use the term ‘honors college’. To complicate matters more, the term ‘university college’ has very different meanings in different countries. For example, University College Utrecht is a residential honors college in the Netherlands. But in for example Norway and Denmark, university colleges are not honors colleges at all, but a generally used name for institutions that would be called universities of applied sciences in most other countries.⁹

Finally, most of the information has been gathered by desktop research from the Netherlands and not by travelling to the countries; this had advantages and disadvantages (see Fuszek 2011, p. 14¹⁰). While a short period of immersion in the local culture will certainly generate a lot of valuable data, retaining an outside view is also useful, as making comparisons might be easier.

⁷The knowledge of the local languages among the researchers involved in this study limited searches: this knowledge differed from good (Dutch), average (German, French) to limited (Norwegian, Danish, Swedish) to non-existent (Finnish, Icelandic, Italian in Switzerland).

⁸This can be explained by the fact that the main target group of the English-language website is formed by international students. They often do not fall in the target group of the honors program, if this is conducted in the local language.

⁹If we use the terms honors college or university college, it always refers to the meaning in the local context. In the country chapters we will explain the local use of terminology.

¹⁰The 2011 Hungarian report on talent support in different countries was compiled by making country visits and the researchers found this valuable: ‘Every member of our team spent on average one week in the target country to visit and study in detail the sites implementing the presented good practice, and to meet also the individuals elaborating, developing, and implementing them. Our researchers were received by politicians responsible for talent support and by prominent theoretical and practical experts in each country’.

Of course, efforts have been made to make sure the information is as accurate and complete as possible, for example by asking key persons in the countries described to read preliminary versions of the chapters about their respective countries. However, it is possible that information has been missed. This can also be the case because we contacted only one e-mail address per HEI. While we tried to use relevant addresses, it is possible that the person answering our e-mail did not know about a program at his/her HEI.

Also, developments in this field can be rather quick and sudden. Therefore this book should be seen as a snapshot of the situation at the time of writing. Of course, we hope our results inspire other researchers to find out even more about honors education.

We do some suggestions for further research in part V of this book. This concluding part is written in three chapters: the first offering a comparative perspective across the countries, the second offering an analysis of the relevance of the factors described in Chap. 2; and the final chapter providing different perspectives, a look into the future and suggestions for further research.

We start our description of country results with the Benelux countries.

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¹¹**Note:** Literature used to prepare this book is included on this list. Some of the entries are in local languages and have not been read completely by the researchers. Instead, they have been searched with keywords to retrieve relevant information.

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Part II

The Benelux Countries



Map II.1 The Benelux countries

BELgium, the **N**ETHERlands and **LUX**embourg share a large part of their history¹ and have been working together intensively for many years.

In 1944, when their governments were exiled in London during World War II, the three countries started the Benelux, a platform for intergovernmental cooperation.² Apart from the ‘formal’ Benelux, there is also collaboration in the field of education. Since 1988, the Foundation BeNeLux University promotes scientific and cultural cooperation between the three countries.³ The Netherlands and Flanders work together intensively in higher education. In 2003, they established the NVAO, ‘an independent accreditation organisation tasked with providing an expert and objective assessment of the quality of higher education in Flanders and the Netherlands’ (NVAO 2014).

All Benelux countries share a system of relatively unrestricted access to higher education. With some exceptions, every student holding the relevant secondary school diploma can enter higher education.

In the Netherlands, focus on excellence in education is a national policy goal and nearly all higher education institutions have developed one or more honors programs. The Flemish (Dutch-speaking) part of Belgium has started to follow this development in recent years, while the Walloon (French-speaking) part lags behind. In Luxembourg there is just one university and here no honors programs are offered.

The three Benelux countries will now be discussed separately, starting with the largest one: the Netherlands.

Literature

Benelux. (2014). *Benelux in één oogopslag*. Retrieved from: www.benelux.int/nl/bnl/bnl_intro.asp. 12 Mar 2014.

NVAO (Nederlands-Vlaamse Accreditatieorganisatie). (2014). *About NVAO*. Retrieved from: http://nvaocom/about_nvaocom. 13 Mar 2014.

¹When current countries did not yet exist, the whole area was referred to as ‘The Low Countries’. From the late sixteenth century, they were mostly united in the Netherlands (northern and southern part), until Belgium became independent in 1830. Luxembourg was partly governed by Dutch kings until it became independent in 1890.

²First this was just a customs union, but soon it included more economic cooperation. All Benelux countries were among the six nations starting the European Coal and Steel Community in 1951, the first predecessor of the European Union. In 2010, the Benelux cooperation changed under a new treaty that established the Benelux Union. Cooperation now focuses on internal market and economic union, sustainability, justice and internal affairs. See Benelux 2014 for more details.

³It also educates professionals, especially in the field of justice and police matters. See www.benelux-universitair-centrum.org for more details.

Chapter 4

The Netherlands: Focus on Excellence, Honors Programs All Around

4.1 Education System

The Netherlands (...) has perhaps the most unified, consistent, and self-conscious array of honors programs and research projects about honors based on the U.S. model. (Long 2012, p. 9)

The attitude towards excellence changed quickly in Dutch society over the last 20 years. ‘Until recently in the Netherlands, special programs to support weaker students were generally accepted, whereas “high potential programs” (honors) were considered inappropriate in a democracy where all students should be treated equally – a stance that still prevails in many European countries’ (Wolfensberger 2012, p. 16; see also Wolfensberger et al. 2012a, p. 149). But now, excellence in education is named a priority by the ministry of Education and money is set aside for it. The development of honors programs at higher education institutions started in 1993, but accelerated in the early 2000s. As inspiration for the development of programs was sought in the United States, the term ‘honors program’ was imported and has since been widely used for the extra educational offers made to excellent students in higher education in the Netherlands. In 2004, the ministry of Education established a temporary commission called *Ruim baan voor talent* (make room for talent), which provided small subsidies to experimental differentiation projects at HEIs, including honors programs, until 2007.¹ A major incentive to the development of these programs came in 2008, when more government subsidies through the national Sirius Programme became available. By now, most HEIs in the Netherlands have honors programs.

The attention for excellence in higher education is embedded in an education system where focus on excellence has significantly increased over the last few years (Boxes 4.1 and 4.2). Many provisions for excellent students are already in place in primary and secondary education and the government strongly supports further development.

¹ See Commissie Ruim baan voor Talent 2007 for the commission’s final report.

Box 4.1: The Netherlands – The Basics

- 16.8 million inhabitants
- Capital: Amsterdam
- Constitutional monarchy
- 12 provinces
- Social-democratic/liberal coalition in power

Box 4.2: Education in the Netherlands

- Free until age 18
- Compulsory from age 5–18 or until basic qualification is obtained
- System of public schools, religious schools and schools based on an educational philosophy
- Eight-grade primary school
- Differentiation after primary school (age 12) in three main types of secondary schools
- Higher education admission with secondary education diploma
- Ministry of Education, Culture and Science responsible for all levels of education

An extensive array of approaches to education, seen through a wide diversity of schools, defines the Dutch education system. This system rests on the principle of free school choice for parents.² Public schools, on the one hand, and special schools based on religion or educational philosophy, on the other hand, are all financed by the government. In theory, special schools can reject pupils whose parents do not agree with the basic principles of the school, but this rarely happens. In fact, around 70 % of all pupils attend special schools (CBS Statline 2014)³ and differences between special schools and public schools may be very limited.

While compulsory education starts at the age of five, almost all children enter the eight-grade primary school (*basisschool*) at age four. Differentiation occurs early. At the end of primary school, around age 12, pupils choose one of three options: pre-vocational secondary education (*vmbo*, 4 years⁴), senior general secondary

²This has been subject of much debate in the early twentieth century and subsequently the right of free school choice was included in article 23 of the Dutch constitution.

³Of all primary school children, over 69 % attend special schools. In secondary education the number is even higher at 74 %.

⁴There are different types of *vmbo* education and exams can be taken at different levels. A *vmbo* diploma is not considered a 'starting qualification' to enter the labor market. *Vmbo* graduates under the age of 18 are required to continue their studies in vocational education courses, or at the *havo*.

education (*havo*, 5 years) or pre university education (*vwo*, 6 years). Selection occurs with the advice of the teacher as main determinant, although a national test (*CITO-toets*) taken by most children⁵ also plays a large role.

While in secondary school, pupils can move between the three school types. Often this can be easily facilitated, as many schools offer all three levels of education in the same building. It is also possible to for example move to *havo* after passing a *vmbo* final exam, although extra requirements for admittance to the *havo* may be set by the individual school. National exams are taken at every level of secondary education in the last year. The structure of the Dutch education system is summarized in Fig. 4.1.

There have been a lot of excellence initiatives at the primary and secondary school levels from the 1980s (See Persson et al. 2000, p. 716–717 for some early initiatives).⁶ It is impossible to name them all in the short space available here. Generally speaking, many initiatives at these levels have moved from experimental status to a more permanent, institutionalized status, especially since the government made excellent education one of its official priorities in 2012 (Rijksoverheid 2012). Then, the government asked the Platform Bèta Techniek (also home of the Sirius Programme⁷) to write reports about the current situation and make recommendations for policy change. Think tanks were established, which published reports for primary education (Platform Bèta Techniek 2014) and secondary education (Platform Bèta Techniek 2013). In early 2014, this led to an action plan from the ministry, focusing on primary and secondary education (see Sect. 4.3).

Beyond national support, initiatives to make provisions for excellent students occur on the local level where schools themselves create distinctive initiatives. Some examples include:

- primary and secondary schools which focus especially on gifted and talented children⁸;
- a primary school called ‘Het Talent’ works with age independent groups, where children receive education tailored to their level in content and in pace⁹; and
- a secondary school is experimenting with a ‘sprint class’, where pupils can finish their secondary school in a year less than usual.¹⁰

Sometimes local initiatives can lead to nationwide programs, for example in the case of the association of gymnasia. Local gymnasia developed programs for their best pupils, which have now evolved into an honors program offered to all member

⁵From the school year 2014/2015, taking the national test will be obligatory for all schools.

⁶Gifted education in its early years was mainly promoted by the Center for the Study of Giftedness at the Radboud University in Nijmegen, then headed by professor Franz Mönks.

⁷See Sect. 4.2 for more details.

⁸For example Leonardo schools, see www.leonardo-onderwijs.nl.

⁹See www.het-talent.nl.

¹⁰See www.pallasathenecollege.nl/nieuwe-leerling/bijzondere-programmas

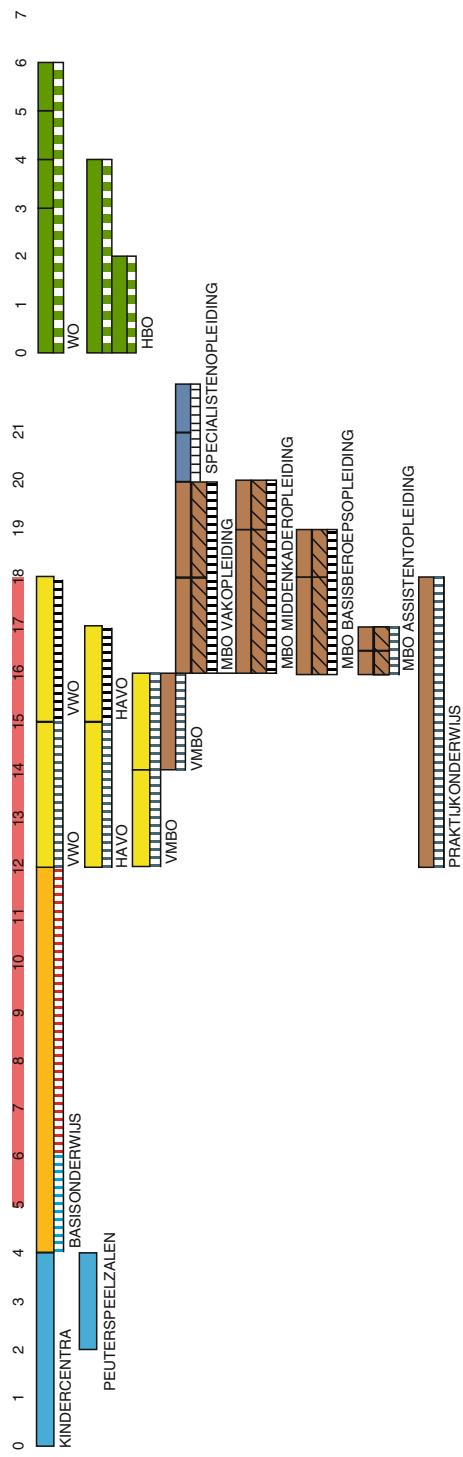


Fig. 4.1 Structure of the Dutch education system (Eurydice 2014) see Fig. 3.1b for standardized legend

gymnasia through the association.¹¹ Other initiatives for excellent pupils include national Olympiads in different subjects, which often include creative elements.

Nationwide, the government initiated a program in 2012, in which primary and secondary schools can officially be designated an '*excellente school*' (excellent school), as inspired by a German example. For this purpose, excellence is viewed in various ways, including education results on different terrains and a school's own 'excellence policy', but also the way the school manages the educational process and the way the school handles specific circumstances in its environment.

Schools register themselves and a jury advises the minister if the school deserves the designation. If awarded, schools receive a plaque to hang at their door. In early 2014, 76 schools were awarded excellent status.¹² In its annual report to parliament, the jury of the excellent schools concluded that these schools serve as examples for other schools; enthusiasm for the program grows annually (Ministerie van Onderwijs, Cultuur en Wetenschap 2014).

Primary and secondary schools can officially be designated 'excellent school'

A majority of universities in the Netherlands offer enrichment programs for talented secondary school students (see Sirius expertcommissie 2014¹³). Junior College Utrecht (2014) provides a well-known example. Established in 2004, Junior College is a collaboration between Utrecht University and 27 secondary schools. It offers enrichment programs in science & mathematics for talented and motivated 12- to 18- year old high school students (grades 7–12) in an academic environment. High school students who successfully finish the program in grade 11 and 12 receive a certificate that allows them to enter honours courses in the first year of the science bachelor programs. The Junior College applies a school-campus model: enrichment activities at the university campus are embedded in differentiated and challenging excellence programs run by the schools themselves. In this way, Junior College aims to contribute to the development of a culture of excellence at its partner schools.¹⁴

Dutch 15-year-olds generally score quite well in the 2012 PISA report. However, the number of students scoring excellent overall is below OECD average (Kordes et al. 2013, p. 84). This result provides an extra incentive to invest in excellence programs.

¹¹ See www.gymnasia.nl/uploads/files/conferenties-overige/HPG_de_basis.pdf

¹² See www.rijksoverheid.nl/onderwerpen/predicaat-excellente-scholen/excellente-scholen and www.excellentescholen.nl

¹³ At least five universities do this: Utrecht University, Leiden University, Radboud University Nijmegen, Maastricht University and University of Groningen. Hanze University of Applied Sciences Groningen also runs a similar program.

¹⁴ The Junior College has attracted a lot of attention from different countries and is often referred to in international literature, such as Hermann et al. 2011, p. 65.

Two main types of HEIs exist in the Netherlands (see Box 4.3), research universities and universities of applied sciences (*hogescholen* or *hbo*). Access to higher education is relatively open. A senior general secondary education (*havo*) diploma serves as a general entrance ticket to the universities of applied sciences, while the pre university education (*vwo*) diploma grants university access. HEIs can demand that students pass secondary school exams in certain subjects to be admitted to certain majors. Also, some majors which are very popular and/or expensive for the government, use a restrictive admissions process (*numerus fixus*). This is for example the case for medicine, veterinary sciences and physiotherapy. Admission is currently handled in a complicated lottery system, in which good exam marks improve a student's chances of acceptance.¹⁵ The government intends to change this system by the study year 2017–2018. In the new system, HEIs can select students for the *numerus fixus* study programs themselves, based on different criteria, such as secondary school exam grades, personality and motivation (Rijksoverheid 2014b). In addition, a new system requiring a form of 'matching' between the student and the HEI is being implemented at various HEIs. This is used to couple students to the study path matching their talent best, with the additional goal of lowering retention rates in the first year. Some HEIs, such as Utrecht University, use this matching process to identify possible participants in honors programs.

Box 4.3: Dutch Higher Education Landscape

- 14 universities – 10 general, 3 technical, 1 Open University
- 37 universities of applied sciences
- Over 70 accredited 'legal entities providing higher education'

There are 14 government-supported research universities in the Netherlands, all of which are member of the national network VSNU. Three are specialized technical universities and one, the Open University, provides distance learning. University education in the Netherlands has a long tradition, with four institutions dating back to the sixteenth and seventeenth centuries.¹⁶ The Dutch universities also have a good reputation internationally and score well in rankings. Almost all universities make it into the top-500 on the Shanghai list (ARWU 2013).¹⁷

¹⁵ There are both national and institution-based studies with restricted student numbers, known as *numerus fixus*. Students with very high exam marks are guaranteed a place. This system applies to studies such as medicine. See Eurydice 2014, chapter 7.2 for more details.

¹⁶ These are the universities of Amsterdam (1632), Leiden (1575), Utrecht (1636) and Groningen (1614).

¹⁷ Twelve Dutch universities are on both the Shanghai List (ARWU 2013) and the Times List (Times Higher Education World University Ranking 2014). Utrecht, Leiden and Groningen score

Apart from the research universities, a large number of universities of applied sciences (*hogescholen*) exists. Some of these are very large institutions, offering a multitude of educational options at different locations, while others are small and focused on one or a few disciplines. Small private schools can also call themselves “university of applied science”, and the exact number of institutions can change quickly. However, all government-funded institutions are members of the national network Vereniging Hogescholen, which in September 2014 claimed 37 member institutions.

We have restricted our search for honors education to the research universities and universities of applied sciences.

Additionally, quite a large number of small private universities, business schools, specialized universities of applied sciences and art institutions offer higher education. In many cases, special admission criteria apply to these institutions, which are officially referred to as ‘legal entities providing higher education’. The Netherlands provides free primary and secondary education up to the age of 18. A mandatory annual fee needs to be paid to study at a university or university of applied sciences. The tuition fee is € 1906 for 2014/2015.¹⁸ For the moment, most students are entitled to a small monthly government grant to finance part of their studies, but this is subject to change. The government has introduced new legislation implying that from the study year 2015–2016, new students can only apply for a government loan to finance their studies and no longer for a grant.

4.2 Culture and Policy Towards Excellence

Wanting to excel in your studies is no longer an individual hobby, but an institutionalized possibility. (Wolfensberger and Pilot 2014, own translation)

Traditionally, the Netherlands has a culture of egalitarianism in education. Selectivity, competition, and differentiation in tuition are still new and unusual elements in the Dutch educational system, which has an emphasis on broad educational participation without entrance selection (Wolfensberger et al. 2012a, p. 150). Historically, the common belief held that gifted students ‘will learn anyway and do not need any additional aid or guidance’ (De Boer et al. 2013, p. 134).¹⁹ A culture of inclusion prevailed: while attempts were made to help less talented students keep pace with the basic curriculum, the facilities to encourage high-potential students to achieve excellence were insufficient.

in the top 100 on both lists. On the Times List, Amsterdam, Rotterdam, Delft, Wageningen and Maastricht are also in the top 100.

¹⁸Lower amounts apply for tertiary vocational education. Much higher fees can apply to students following extra studies and/or students from abroad. In addition, residential university colleges can charge higher tuition fees and additional campus fees.

¹⁹The article by De Boer et al. also provides a more detailed overview of the policy development regarding gifted education in the Netherlands in general.

Various inspections and accreditation authorities guarantee that all educational institutions offer a good basic level curriculum, accessible to all students. Nonetheless, a relatively large number of students do not feel sufficiently inspired or challenged. In a 2014 report, a quarter of all secondary school pupils indicated that they are often or even always bored because their curriculum is too easy. Among the pupils who count themselves among the top 20 % performers of their class, this percentage is 56 % (Rijksoverheid 2014a, p. 4).²⁰

In recent years, a shift in Dutch policy occurred. Due to the emphasis on the knowledge economy, the importance of fostering and promoting talent has gained recognition. Special provisions for talented and gifted children in primary and secondary schools are now widespread and different national networks and programs exist to support such efforts (Box 4.4).²¹

Box 4.4: Local Terminology

The word ‘honors/honours’ is widely used in higher education in the Netherlands. Other terms to refer to (programs for) gifted and talented children and students include:

- *hoogbegaafd* (highly gifted)
- *talentvolle studenten* (talented students)
- *leervoorsprong* (‘ahead in learning’)
- *excellente studenten* (excellent students)

By law, HEIs are allowed to select students for honors tracks according to their own procedures.²² The first honors programs in higher education started in 1993 (Wolfensberger et al. 2012a, p. 149) and large-scale development has been influenced by the Bologna Process. The Netherlands were relatively quick to adopt the bachelor/master system, and the new structure was in place for almost all new students by 2002. From then on, all universities have started to invest in excellence programs for ambitious and talented students, for various reasons (VSNU 2013).²³ A more recent phenomenon is the development of honors programs at the universities of applied sciences. They followed the development at the universities and saw the number of programs increase ‘from almost zero in 2004 to about 40 in 2010’ (Wolfensberger et al. 2012a, p. 154).

In 2008, efforts were given an enormous impulse, when the Ministry of Education, Culture and Science established the Sirius Programme as an official initiative to

²⁰ Source is a report from research company Intomart, which was ordered by the ministry of Education, Culture and Science.

²¹ The main part of this paragraph is taken from Sirius Programma 2014b.

²² See Article 7.9b of the ‘Wet op het hoger onderwijs en wetenschappelijk onderzoek’ (Law on higher education and scientific research).

²³ The reasons to develop programs have been discussed in part I of this study.

promote excellence in higher education. The ministry invited all HEIs to submit a plan for the promotion of excellence, either independently or in collaboration with other institutions. The largest portion of the Sirius budget has been earmarked for the bachelor's program that was launched in 2008 (€48.8 million). The master program, with a budget of €12.2 million, started in the spring of 2010. These funds provide the first incentive aiming at inspiring the top 5 % of the students to achieve excellence. The Sirius Programme has a double focus: first, each institutions' goals, vision for the whole institution and the performances they wish to achieve (including the feasibility of those performance targets), and second, the learning function of the program as a whole (the sharing of knowledge so that Sirius institutes can learn from each other's experiences). With these points as the framework, Sirius aims to build up a community of participating and interested institutions oriented towards the gathering and sharing of knowledge. In this way, post-secondary institutions can learn both from themselves and from others. Five institutions commenced implementation in their bachelor programmes in the fall of 2008. In 2009, 14 others followed, and in 2010 six universities started to implement honors programs in the master tracks (Box 4.5).²⁴

Box 4.5: Key Players in Excellence

The following institutions are among the most important players in the field of talent and excellence in higher education:

- The ministry of Education, Culture and Science
- The Platform Bèta Techniek, a government-supported independent body running many programs, including the Sirius Programme for higher education
- The Association of Universities (VSNU)
- The Association of Universities of Applied Sciences (Vereniging Hogescholen)
- Research universities, especially Utrecht, Leiden and Amsterdam
- Research Centre for Talent Development in Higher Education and Society at Hanze University of Applied Sciences Groningen

The honors programs and the more general theme of 'excellence in education' have also been the subject of a lot of research in the Netherlands. Founded by prof. Franz Mönks in 1988, the Center for the Study of Giftedness (CBO) at Radboud University Nijmegen has initiated important research on excellence and still leads this field, especially with regard to pupils in primary and secondary education. CBO also offers a 2-year post-academic teacher education program leading to a qualification as 'ECHA-Specialist in Gifted Education'.

²⁴The main part of this paragraph is a slight adaptation of a paragraph from Sirius Programma 2014b.

At many other universities and universities of applied sciences, specialists conduct research about talent development and excellence in education. For example, Van Eijl and Pilot are working from Utrecht University and have initiated a lot of (early) research on honors programs in the Netherlands (see for example Van Eijl et al. 2005; Van Ginkel et al. 2012).²⁵ Twice a special issue of *Tijdschrift voor Hoger Onderwijs* (*Dutch Journal for Higher Education*) was devoted to studies about honors and talent development. In 2010, Van Eijl, Pilot and Wolfensberger edited a Dutch-language handbook on talent development in higher education, mostly taking a practical approach (Van Eijl et al. 2010). A study was also conducted about similar and different approaches and dispositions in American and Dutch honors teaching (Wolfensberger 2012). The functioning of excellence education programs is a central theme in Dutch research on honors (see Wolfensberger and Pilot 2014²⁶). One more example is a dissertation focusing on instructional strategies for high-ability students (Scager 2013).

There are also different national networks. SLO (National Expertise Centre Curriculum Development) gathers information about education and talent development.²⁷ The Platform Excellence unites different programs focused on stimulating excellence.²⁸

One example of research on excellence is the excellence model (YoungWorks 2012). In this model, also published in English, young people's attitudes towards excellence are characterized. The model was developed in a joint cooperation between the Sirius Programme and YoungWorks.

In 2012, National Research Council NWO organized a one-off funding round intended for scientific research focusing on excellence in education (see Segers and Hoogeveen 2012; De Boer et al. 2013²⁹). More structurally and specifically focusing on excellence in higher education, research occurs at the Research Centre for Talent Development in Higher Education and Society at the Hanze University of Applied Sciences Groningen.³⁰ Marca Wolfensberger and colleagues have made – among other contributions – a typology of honors programs in the Netherlands, identified the reasons why programs were set up and investigated pedagogic ideas which supported them. Goals and effects of these honors programs have been described in

²⁵ See for example the various Dutch researchers contributing to the JNCHC special issue on honors around the globe.

²⁶ This article provides an overview of Dutch research on talent development in higher education. It is published in a special issue of the journal, specifically focusing on excellence in higher education.

²⁷ On the website talentstimuleren.nl all initiatives are gathered and professionals can search good practices, working groups in their area, etcetera. This is only available in Dutch.

²⁸ Platform Excellentie in Dutch, see www.platformexcellentie.nl

²⁹ More on this topic can be found at <http://www.nwo.nl/financiering/onze-financieringsinstrumenten/magw/programma-voor-onderwijsonderzoek/programma-voor-onderwijsonderzoek---excellentie-in-het-primaire-voortgezet-en-hoger-onderwijs/programma-voor-onderwijsonderzoek---excellentie-in-het-primaire-voortgezet-en-hoger-onderwijs.html> (Dutch only).

³⁰ See www.hanze.nl/excellentie (mostly in Dutch).

international literature.³¹ Wolfensberger termed the programs ‘laboratories for educational innovation’ and concluded that spin-off produced ‘a strong influence on educational policy in the Netherlands at the primary and secondary as well as university levels’ (Wolfensberger et al. 2012a).

4.3 New Developments

The education chapter in the coalition agreement of the current government is called ‘from good to excellent education’ (Rijksoverheid 2012). Since the government took power in late 2012, multiple new plans have been introduced. In March 2014 an extensive plan to make provisions for talented pupils in primary and secondary education was presented. The plan mentions over 20 measures, including the removal of legal barriers for pupils to follow certain subjects at higher levels and the possibility of businesses giving grants to talented pupils. The measures are aimed at all levels of education and top talents are defined as ‘the 20 % of pupils that can perform best. At all levels. (...) It is not just about pupils who are very smart and know a lot. It is also about creativity, craftsmanship and competences’ (Rijksoverheid 2014a, own translation).

In the field of higher education, the Sirius subsidies ran until the end of 2014 and have not been continued, as the participating institutions have now established their programs. Universities voiced worries about the funding of their programs to the minister (VSNU 2013). However, the majority of the participating universities and universities of applied sciences have committed themselves to continuing the programs for their best students. They have made agreements with the ministry of Education on this matter. In 2013, three research institutes were asked by the ministry to investigate the added value of the Sirius Programme. Results are expected in 2015.

In October 2014, a national summit addressed the future of honors education, under the motto ‘The best way to predict the future is to design it’.³² The summit marked the end of the subsidy era and of Sirius as a main policy instrument. At the same time, the participating Sirius member institutions decided to continue their network permanently.

4.3.1 Honors Programs per Higher Education Institution

Many honors programs are present in Dutch higher education institutions. For this book, we have looked at the 14 public research universities and the 37 government-funded universities of applied sciences in the Netherlands. We have added one small private university which is a member of the Sirius Programme (Theological

³¹ For example in the Journal of the NCHC’s special issue on ‘honors around the globe’ in 2012.

³² See website Sirius Programme for more details.

University of the Reformed Churches Kampen), but we have not looked at other private universities. This leads to an added total of 52 HEIs.

Starting at the public research universities in the Netherlands, we have found that all universities with the exception of the Open University³³ now have at least one honors program. Most programs are focused at the bachelor level, and they can be divided into mono-disciplinary programs, interdisciplinary programs and multidisciplinary programs, following the distinction made by Wolfensberger et al. (2012a). Mono-disciplinary programs are organized per major or department, while interdisciplinary programs bring different departments together or are offered institute-wide. The multidisciplinary programs usually take the form of honors colleges, often offering Liberal Arts and Sciences courses and taking the place of a regular bachelor program. There are eight of these colleges at research universities at the time of writing.³⁴

Next to the bachelor programs, there are also a few programs at the master level. This is quite unique, even in an international context. Specifically for these programs, three types of approaches can be distinguished: research-specific, professional, and interdisciplinary (See Van Ginkel et al. 2012).

With regard to the universities of applied sciences, we found that 25 out of the 37 government-funded universities of applied sciences also have honors programs, mostly developed over the last few years. All institutions without honors programs have less than 5,000 students: the 17 largest universities of applied sciences all have honors programs. In all cases, programs have different forms: they can be organized as separate study paths, within the curriculum, co-curricular or extracurricular.

A form of education deserving special mention is the *Academische pabo* ('academic teacher education'). In the Netherlands, education for primary school teachers is handled in schools called *pabo*, at the level of universities of applied sciences. In recent years, academic variants of this education program have developed. Such programs often combine bachelor programs in for example pedagogy at research university level with the *pabo* program at the university of applied sciences level. In many cases, participating students are enrolled at both HEIs and if successful, they receive two diplomas.³⁵ These programs are not included in our list, as they are regular education. In some cases, the *Academische pabo* is presented as a special selective *pabo* program and it then leads to one diploma, on which the extra work is usually mentioned. We did include these programs in the overview below.³⁶

³³The Open University is a special university, focusing on lifelong learning. It is excluded from the table below.

³⁴The University Colleges are Utrecht University College, Roosevelt Academy (in Middelburg, connected to Utrecht University), Maastricht University College, Leiden University College, Amsterdam University College, Atlas University College (at Twente University), Erasmus University College (Rotterdam) and University College Groningen (start in September 2014).

³⁵In most cases the *pabo* diploma (bachelor at university of applied sciences) is combined with a bachelor in pedagogic or educational sciences at research university level, both of which can be obtained in a 4-year program. In a program offered by Erasmus University Rotterdam and the Rotterdam University of applied sciences, students can get a *pabo* diploma and a research university master diploma in pedagogy and education in 5 years.

³⁶A full list of *Academische pabo* programs is offered on the website Paboweb: www.paboweb.nl/themas/14

Participation in all honors programs is growing. In 2012, 3.3 % of all bachelor students participated in an excellence program, and 2.6 % of all master students (Sirius expertcommissie 2014, p. 6). In 2013, the Sirius audit commission visited a selection of 16 programs and found out that student numbers in these programs are growing fast (*ibid*, p. 7³⁷). Over the last few years many programs which started as experiments, have now established themselves more permanently within their institute. In some programs, universities have started to work explicitly with businesses on solving real-world problems.³⁸

Participants in honors programs have also started to organize themselves in honors students' associations.³⁹ Most of these are organized per institution, but students are also organizing themselves at the national level through the Honors Community, a platform for honors students in the Netherlands.⁴⁰ A first national conference for and by honors students was organized by the Honours Community in 2013, a second one focused on globalization and was held in June 2014.⁴¹

In addition, a number of honors alumni have started an international network of honors students, called Socrates International Honour Society. Organized in the form of a non-profit foundation, Socrates aims to form a network of honors pupils and students. There are already 'chapters' in eight Dutch student cities and the organization hopes to extend their network to Belgium (Flanders) (Socrates International Honour Society 2014⁴²). Recently, Socrates also started to involve secondary schools in their network. Part of their activities are organized in collaboration with (local) businesses or non-profit organizations.

There are also some initiatives for excellent students that are organized outside the higher education system. One example, the *Nationale Denktank* (National think-tank), provides an annual project in which a group of 20 talented young people cooperate to solve a real-world societal problem.⁴³

All of the universities and universities of applied sciences with honors programs are shown on Map 4.1. First, we discuss honors programs at government-supported research universities, before moving on to the honors programs at universities of applied sciences. Because there are so many and different programs, descriptions per HEI will be limited to a general overview and one specific example. Appendix 3 provides a list of links to the institute's general website and if available, the website of the honors program(s).

³⁷ The number of participants in these programs grew over 10 % in universities of applied sciences, over 20 % in university bachelor programs and 18 % in university master programs.

³⁸ For example Rotterdam University of Applied Sciences in its Innovation Lab and Windesheim in its institute-wide program.

³⁹ Links to a number of these associations can be found at the Sirius Programme webpage (see key links in Appendix 2).

⁴⁰ See www.honourscommunity.nl for more details.

⁴¹ See www.honoursconference.nl

⁴² See <http://socrateshonours.org/> for more information.

⁴³ See www.nationale-denktank.nl for more details (Dutch only).



Map 4.1 Dutch higher education institutions with honors programs, 2014

4.4 Research Universities

The 14 Dutch government-supported research universities are shown in Table 4.1, ordered by size, measured in student numbers. The programs described below do not have generally applicable features. They can differ in intensity, educational forms, number of ECTS, student numbers and positioning towards the regular program.

Table 4.1 Honors programs at government-supported research universities in the Netherlands

University	Total no. of students ^a	Honors in bachelor/master program	Disciplinarity (disciplinary, inter, multi)	No. of honors students ^b
University of Amsterdam (UvA)	31,123	B	D/I/M	400
Utrecht University (UU)	30,152	B/M	D/I/M	1,500
University of Groningen (RUG)	27,169	B/M	D/I/M	790
VU University Amsterdam (VU)	23,662	B	D/I/M	400
Leiden University (LU)	23,007	B/M	D/I/M	555
Erasmus University Rotterdam (EUR)	22,064	B	D/I/M	198
Technical University Delft (TUD)	19,135	B/M	D/I	390
Radboud University Nijmegen (RU)	18,459	B/M	D/I	750
Maastricht University (MU)	14,894	B/M	D/I/M	1,400
Tilburg University (TilU)	12,589	B	D/I	336
University of Twente (UT)	9,314	B/M	D/I/M	200
TU/Eindhoven (TUE)	8,380	B	D/I	57
Wageningen UR (WUR)	8,299	B	D/I	25
Total	248,247			7,001

^aSource: VSNU (2014) (preliminary numbers for 1 October 2013)

^bSources: website Sirius Program or university website (Wageningen)

4.4.1 University of Amsterdam

4.4.1.1 General

The University of Amsterdam offers disciplinary and interdisciplinary honors programs. The interdisciplinary programs offered are part of a collaboration between the University of Amsterdam (UvA), the Amsterdam University College (AUC, a residential American-style honors college⁴⁴) and VU University Amsterdam (VU). At each university, new modules (courses) start each semester and all honors students can then enroll in one of more than 35 modules offered. Additional courses with a workload of at least half a year will be followed during the bachelor's degree.

⁴⁴The Amsterdam University College is a Liberal Arts & Sciences College, founded by UvA and VU in 2008.

At the end of the bachelor program, honors students who have obtained a minimum grade of 7.5 (on a scale of 1–10) for all regular and extra courses receive an extra certificate with their diploma.

4.4.1.2 Specific Example

Big History illustrates a module in the interdisciplinary program. Students reflect on their own position in space and time, as seen from an unusually broad perspective that covers the history of everything, from the big bang until today. To take part, students are selected for an honors program in their own major study program first. Then students can register, but there are only twenty-five seats per semester and admission is on ‘first come, first served’ basis.

4.4.2 Utrecht University

4.4.2.1 General

Utrecht University has one of the longest traditions in honors education in The Netherlands. It distinguishes honors colleges and honors education. There are four honors colleges, offering full 180 ECTS bachelor programs at honors level. University College Utrecht and University College Roosevelt are both residential colleges, while the College of Pharmaceutical Science and the Utrecht Law College are non-residential. Specific honors education is offered at most faculties of Utrecht University. The students follow at least 25 % of their bachelor courses at honors level, often on top of their regular program. Utrecht University also offers a university-wide interdisciplinary honors program, called Descartes College. In addition, different honors programs in the master phase are also offered. One example is the interdisciplinary Utrecht University Business Course. In this program, thirty students work with entrepreneurs from Utrecht on a pressing business problem. Finally, the Junior College Utrecht runs the U-Talent program for excellent secondary school students.

4.4.2.2 Specific Example

The Descartes College fosters an interdisciplinary honors community for academics from different disciplines. Existing since 2005, talented and motivated students from all over the university can follow interdisciplinary courses, in which they get the opportunity to meet the university’s best scientists. In total four courses can be followed. Selection is based on CV, grades and a cover letter, in which students elaborate about their motivation. A selection committee then invites the best applicants for an interview.

4.4.3 University of Groningen

4.4.3.1 General

The University of Groningen offers honors programs for both bachelor and master students, united in the Honours College (in this case not a residential college, but a general term for the program). The bachelor honors program is offered at all nine major departments (which are referred to in the Dutch context as faculties) and is co-curricular. The program has a disciplinary component at a student's 'home faculty' where he follows his major. In this part of the program the students gain in-depth knowledge on their studies. In addition, students also follow part of the program at the 'college', where they gain knowledge in another discipline. The master honors program is also co-curricular and focuses on leadership.

4.4.3.2 Specific Example

The master honors program, founded in 2011, consists of a 1-year program where students get in touch with different aspects of leadership theories and develop leadership skills. The program is in English and consists of four master classes, the leadership lab, a personal development workshop and finally a personal 'masterwork'. Admission is based on interviews. Approximately 90 students are in the program. Upon successful completion, students receive an honors certificate with a letter of recommendation of the university's rector magnificus.

4.4.4 VU University Amsterdam

4.4.4.1 General

The VU University Amsterdam offers various honors programs. Students complete honors courses within their own department as well as interdepartmental courses for a total of 30 extra credits. The specifics differ per department. The courses in the interdepartmental program are interdisciplinary and are part of a collaboration between VU, UvA and AUC.⁴⁵

4.4.4.2 Specific Example

The honors program of medicine exists as a 4-year research program that can be followed in addition to the regular medicine program. Founded in 2000, students conduct medical scientific research in one of the ten scientific focus-areas of VU. The registration process for this program is lengthy: in the first bachelor year

⁴⁵See description University of Amsterdam above for more details on the interdisciplinary program.

students can apply, and 25 students will be conditionally admitted based on academic performance and motivation. These students complete two interdisciplinary honors courses and a short internship at four of the ten focus-areas. After finishing all of that successfully, they may begin their research proposal. The honors students continue their research in the master program. When they finish after nearly 4 years, they offer the results to an international journal. After presenting the results at a final symposium students receive an honors certificate.

4.4.5 Leiden University

4.4.5.1 General

At Leiden University, which has one of the longest traditions in honors education in The Netherlands, curious and ambitious students can participate in the Honours College at the bachelor level or the Leiden Leadership Programme at master level. The bachelor Honours College consists of various tracks. Students can choose disciplinary depth or interdisciplinary broadening. They have to choose at least one interdisciplinary project. Students are also a part of the Honours Community. Here, a committee can be joined and participation in various activities is possible. Leiden also has a pre-university college.

4.4.5.2 Specific Example

Founded in 2011, the 1-year Leiden Leadership Programme is offered to master students. Students are challenged to develop themselves into future leaders. This happens in a small learning environment, where direct interaction between teacher, student and fellow students plays a central role. Focus is on developing knowledge and skills in the field of leadership. Skill training courses, seminars and coaching are part of the program. Furthermore, all students work with fellow students on a practical assignment with a partner organization of the university in the private or public sector. Selection is based on a cover letter describing the student's aspirations, CV, a recommendation letter and grades. Each year 55 students take part. When successfully completed, the student receives a certificate.

4.4.6 Erasmus University Rotterdam

4.4.6.1 General

Erasmus University Rotterdam offers both disciplinary and interdisciplinary honors programs. The university-wide program is called 'Erasmus Honours Programme'. Here, lecture series in different themes are central. Additionally, students can follow disciplinary honors programs in some departments. The selection requirements of these programs are similar to those of the Erasmus Honours Programme (see below).

4.4.6.2 Specific Example

Since 2004 the Erasmus University of Rotterdam offers the Erasmus Honours Programme. Participating students are challenged to transcend the borders of their own discipline and look at other disciplines. Students can apply after their first bachelor year. They must have finished all first-year courses with a high average mark and send a letter of motivation and CV. A selection commission chooses 25 participants per year. The program takes three periods of 8 weeks, with a different topic discussed each period. Students submit several assignments per unit. After finishing the program, students receive a special remark on their bachelor diploma, along with a letter of recommendation from the head of the university.

4.4.7 Technical University Delft

4.4.7.1 General

Both bachelor and master students can apply for the Honors Program Delft. Successful candidates become members of the Honors community, which consists of online groups and an honors location. Students meet each other and in this way broaden their interests and knowledge. Both the bachelor and master honors program give students the opportunity to design their personal program and take initiative, based on the student's personal interests and opportunities. The students can for example perform a study guided by a professor, write a business plan, perform a task for companies or organize seminars for other students. Application is based on grades and motivation. Upon completion, students receive an honors certificate.

4.4.8 Radboud University Nijmegen

4.4.8.1 General

Radboud University has an Honours Academy offering nine disciplinary honors programs in the bachelor phase, which are 'intense, challenging and personally tailored' and three honors programs in the master phase. 150 Master students can participate in the three master honors programs Reflections on Science, Reflections on Professions and Beyond the Frontiers. In addition, there is one interdisciplinary program.

4.4.8.2 Specific Example

One of the bachelor-level disciplinary honors programs is in Social Science, available to 15 students. After a selection process, students participate in a 2-year program which takes about 10 h of extra study time per week. In the first year

students follow theoretical and methodological courses. In the second year they undertake individual research and report the results. To apply, students send a cover letter describing their motivation, and their CV to a selection committee.

4.4.9 *Maastricht University*

4.4.9.1 General

All teaching at Maastricht University is guided by the principle of problem-based learning. In various departments, the best students may follow excellence programs as an extension of their regular courses. These programs focus on academic research competences. Furthermore, there are two university-wide programs: the MarBLE program focused on research-based learning and the PREMIUM program in which interdisciplinary groups of master students work on assignments from the business and government sectors. Finally, University College Maastricht and the Maastricht Science Program are multidisciplinary programs, following the concept of 'Liberal Arts and Sciences'.

4.4.9.2 Specific Example

University College Maastricht is the university's honors Liberal Arts College, founded in 2002. The concept of choice is central. Students are offered a broad range of courses, giving them the opportunity to develop their own talents. The program is very demanding. All teaching is in English and approximately 50 % of students come from abroad. Admission is highly selective and based on grades and an interview. Around 600 students are enrolled.

4.4.10 *Tilburg University*

4.4.10.1 General

Tilburg University offers bachelor students three honors programs. There are disciplinary programs in European studies (European Discourses) and economics (CentER Honors Program). The university-wide Outreaching Honours Program prepares students to 'take responsibility and lead in the society'.

4.4.10.2 Specific Example

In the Outreaching Honors Program, students apply scientific knowledge to social issues and themes, acquire international experience and prepare for social engagement. The program, started in 2010, consists of many components, ranging from

‘Outreaching Labs’ to boardroom internships and from an international study trip to support by top coaches. Selection is based on grades, CV, a cover letter describing a student’s aspirations, essay and an English proficiency test. The program has a maximum of 50 participating students. Upon successful completion, a certificate is appended to the bachelor degree.

4.4.11 University of Twente

4.4.11.1 General

The University of Twente offers both a bachelor and master honors program. The bachelor honors program is interdisciplinary. Students choose between the disciplines Science, Design and Mathematics. Within these disciplines students follow six modules in one and a half years. A main goal of the bachelor program is community building, while the primary goal of the master program focuses on leadership development. In 2013, the university also started the Atlas University College (Academy of Technology and Liberal Arts & Sciences), a full honors bachelor program.

4.4.11.2 Specific Example

In the Science bachelor honors program students learn about great scientists, everyday scientific situations, write their own research proposal and make a joint final work. The program was founded in 2007 and consists of six modules, including an individual project. Selection is based on study results and motivation. Only 25 students can take part. Upon successful completion, ‘Graduated with Honours’ becomes inscribed on the diploma.

4.4.12 TU/Eindhoven

4.4.12.1 General

The TU/Eindhoven offers an Honors Academy with six excellence tracks for bachelor students, and in the future for master students as well. The Honors Academy started in 2013 and replaces a previous honors program. The overall goal involves preparing students for scientific, societal and personal leadership. Students can dive into their own discipline or explore other disciplines. Admission is based on grades and motivation, assessed in an interview.

4.4.12.2 Specific Example

An example of a track is ‘Empowerment for Health and Wellbeing’. It places students directly within the social context, working with citizens in their everyday life. It is divided in two parts of 15 ECTS credits each. After the first part, the progress and the quality of work of the students is assessed. Students among the top 20 % get a personal invitation, however others can also apply. In the current early stage of development, only six students follow the program; room exists for growth.

4.4.13 Wageningen UR

4.4.13.1 General

Wageningen University offers the university-wide interdisciplinary ‘Honours Programme’. It starts with an introduction course, after which selection is based on grades and motivation. Per year, 25 students gain admission. They go on an excursion to meet each other, follow different workshops and finally form interdisciplinary research groups. In the following 2 years students conduct research in this group. In addition, the students have the option to use so-called ‘honors cards’ in their courses. They then follow a more difficult version of this subject. The student can also choose to use the ‘honors card’ on activities or self-designed projects. During the program students can use a total of four ‘honors cards’. Furthermore, the bachelor thesis of the students is enlarged. After finishing the program, students receive a special mention on their bachelor diploma.

4.4.14 Private University: Theological University of the Reformed Churches Kampen

The small private Theological University of the Reformed Churches Kampen (TU Kampen) offers a program in theology, which also includes an ‘excellence trajectory’. Motivated students who score well can apply for the program. This includes six extra courses of five ECTS each, which can be selected from an offer of 21 courses. Students can start in the last period of their first year or first period of their second year. Upon successful completion, they receive an extra certificate. In early 2014, 65 students were enrolled at the university in total. Two bachelor students and two master students followed an excellence trajectory.

4.5 Universities of Applied Sciences

A majority of 25 out of 37 government-funded universities of applied sciences, including all the large institutions, now offers some form of honors education. The number has increased in recent years. In 2012, an overview of honors programs at

universities of applied sciences was made for the national association of universities of applied sciences (Wolfensberger et al. 2012b⁴⁶). Findings indicated 19 institutions offered a total of 40 excellence programs during 2009/2010.

According to the researchers, ‘the forty programs could be broadly divided into three categories:

1. Honors programs offered as a complete bachelor program of 240 ECTS. Students enrolled in this category perform all study activities at a higher level. Strikingly, four of five programs in this category are found at teacher training colleges.⁴⁷
2. Excellence programs organized university-wide and offered to students from all majors. Most programs in this category (eight in total) start after the first year of study, are around 30 ECTS and are an addition to the regular study program. Students enrolled in programs in this category follow the regular study program with their peers and have separate classes for the honors course.
3. Excellence programs organized by one faculty [department] for students of a specific major. Programs in this category (27 programs in total) are taken in addition to the regular study program and are generally between 20 and 40 ECTS. Students who successfully completed an honors program, receive an honors supplement or certificate at time of graduation. A number of universities offer a combination of categories discussed above; e.g. an honors program centrally organized for university-wide participation in addition to programs organized at faculty [departmental] level’ (*ibid*, p. 10).

Since publication of this report, a number of new honors programs have been developed at the universities of applied sciences. In early 2014, the Sirius Programme published a study in which a number of participating universities of applied sciences tried to formulate the shared profile of ‘excellent professionals’ (Sirius Programma 2014a, see also Coppolose et al. 2013, p. 64).

Table 4.2 depicts the situation at the time of writing. The programs at member institutes of the Sirius Programme and other programs known to the Sirius Programme were first described. The other universities of applied sciences were asked about their honors education offer by e-mail or phone. All institutions except the Thomas More Hogeschool replied. The universities of applied sciences in Table 4.2 are ordered by size (measured in student numbers).

4.5.1 Amsterdam University of Applied Sciences

The Amsterdam University of Applied Sciences (Hogeschool van Amsterdam, Hva) puts emphasis on developing programs of excellence with a recognizable, vocational signature. First and second-year students can enter Studium Excellentie, a program where they investigate their talents. Third- and fourth-year students can participate in full honors programs, organized per domain (department). Selection

⁴⁶The association was then called HBO Raad, currently it is Vereniging Hogescholen.

⁴⁷See information about Academische pabo in Sect. 4.3.1.

Table 4.2 Honors programs at universities of applied sciences in the Netherlands

University of applied sciences	Total number of students ^a	Program	Disciplinarity (disciplinary, inter, multi)	Number of honors students ^b
Amsterdam University of Applied Sciences (HvA) ^c	48,027	Yes	D/I	1,082 (2013)
Fonyts University of Applied Sciences	42,484	Yes	D	36 (2010)
HU University of Applied Sciences Utrecht (HU) ^c	36,454	Yes	I/M	500 (2013)
Rotterdam University of Applied Sciences (HR) ^c	32,443	Yes	I/M	1,200–1,500 (2013)
HAN University of Applied Sciences	31,921	Yes	D/I	40 (2010)
InHolland University of Applied Sciences ^c	30,138	Yes	D	25 (2010)
Avans University of Applied Sciences	27,705	Yes	D	20 (2010)
Hanze University of Applied Sciences Groningen ^c	26,223	Yes	D/I/M	920 (2013)
Saxion University of Applied Sciences ^c	25,336	Yes	I	303 (2012/2013)
The Hague University of Applied Sciences (HH)	24,783	Yes	D	15 (2011)
Windesheim University of Applied Sciences	20,112	Yes	I/M	Unknown
Zuyd University of Applied Sciences	14,675	Yes	D	24 (2010)
NHL University of Applied Sciences ^c	11,512	Yes	I/M	250 (2013)
Stenden University of Applied Sciences	10,412	Yes	D	20 (2014)
University of Applied Sciences Leiden (HL)	8,794	Yes	I	Unknown
Breda University of Applied Sciences (NHTV)	7,171	Yes	I	30 (2013)
HZ University of Applied Sciences	4,629	Yes (pilot)	I	n/a
Christelijke Hogeschool Ede	4,195	No, but due to start in 2015		
VHL University of Applied Sciences	4,171	No		
HKU University of the Arts Utrecht	3,870	No		
ArtEZ Institute of the Arts ^c	3,055	Yes	I	45 (2013)
Amsterdam School of the Arts (AHK) ^c	2,939	Yes	D	26 (2013)

(continued)

Table 4.2 (continued)

University of applied sciences	Total number of students ^a	Program	Disciplinarity (disciplinary, inter, multi)	Number of honors students ^b
HAS University of Applied Sciences	2,591	Yes	I	50–90 (2014)
Vilentum University of Applied Sciences	2,565	No, but due to start in 2016		
Hotelschool The Hague	1,934	No		
VIAA/Gereformeerde Hogeschool	1,606	No		
Marnix Academie	1,552	Yes	D	14 (2009)
University of the Arts The Hague	1,542	No, but due to start in 2015		
Driestar Educatief ^c	1,321	Yes	D	20 (2013)
Codarts Rotterdam	972	No		
Hogeschool iPabo	935	No ^d		
Gerrit Rietveld Academie (GRA)	894	Yes	I	20 (2014)
De Kempel	757	Yes	D	19 (2010)
Design Academy Eindhoven	735	No		
Katholieke Pabo Zwolle	663	No		
Thomas More Hogeschool	506	–		
Iselinge Hogeschool	433	Yes	D	36 (2014)
Total	440,235			

^aSource: Vereniging Hogescholen (2014), numbers for 2013

^bSources: website Sirius Programme, program website or Wolfensberger et al. 2012b, p. 39 (2010 numbers)

^cIndicates member Sirius Programme

^dAt Hogeschool iPabo, a possible future honors program focusing on excellent mathematics students is in development

is usually based on motivation and portfolio. One interdisciplinary institute-wide honors program exists, Design in Society, where students from different domains work in an innovative way on socially relevant tasks of institutions and businesses in the city.

4.5.2 *Fontys University of Applied Sciences*

Fontys teacher academies offer the PaboPlus program. This program, for primary school teacher students, includes 1 day a week of extra lessons and more focus on research. Around 25 students per year can take part. In communication science, an honors program involves a stay in the USA to conduct research on a topical subject.

4.5.3 HU University of Applied Sciences

The HU University of Applied Sciences (Hogeschool Utrecht, HU) has different honors tracks and works with a star system. Students can earn a total of five stars: as a reflective practitioner, for innovation and dissemination, international perspective, professional drive and leadership qualities. Excellent achievements in all five profile features lead to award of the ‘Designation of Excellence’ on the bachelor diploma.⁴⁸ The program is flexible, a student can follow a complete program, excel within one course or during an internship, or suggest his or her own activity within the program.

4.5.4 Rotterdam University of Applied Sciences

The Rotterdam University of Applied Sciences (Hogeschool Rotterdam, HR) has ‘excellence rewarded’ as its motto. The honors program is intentionally flexible: themes, expectations and personal characteristics of the students are so varied that programs need to be tailor-made. In general, the program consists of two phases: the ‘scouting and recruitment’ phase in the first 2 years and the ‘research & innovation’ phase in years 3 and 4. In this second phase, the program focuses on the innovative and multidisciplinary side of the professional. An integral part of all honors programs is taking part in an Innovation Lab in the fourth year of studies. Here the student works in a team of ambitious students to address a topical problem from real companies and institutions in Rotterdam. In addition, a special scholarship is awarded to one of the excellent students, to actually carry out an idea from the honors program experience.

4.5.5 HAN University of Applied Sciences

The HAN University of Applied Sciences offers both an institute-wide ‘Honours Lab’ and a number of disciplinary honors tracks. In the Honours Lab, third- or fourth-year students work in a group for one semester to create an innovative product.⁴⁹ Team development, co creation and passion based learning are key concepts. Selection is based on grades, motivation letter and an interview.

⁴⁸ HU has made a flyer about its program available in English. It can be found through: www.international.hu.nl/Studying%20Programmes/Studying%20at%20HU/Honours-programme.aspx

⁴⁹ A brochure in English is available at http://www.han.nl/gebied/onderwijs-opleiden/nieuws/nieuws/het-multidisciplinaire-ho-1/_attachments/honourslab_for_top_students.pdf

4.5.6 Inholland University of Applied Sciences

The honors programs at Inholland are organized per discipline, an institution-wide program has been discontinued. Students can register at the end of the second year and every program is broadening and includes a multidisciplinary component. When students finish the program successfully, they receive an honors bachelor degree in addition to their regular diploma.

4.5.7 Avans University of Applied Sciences

At Avans teacher education academy, two excellence programs are offered, both called TopClass. The program in behavioral management is a specialization on top of the regular program starting in the third year, while the program in educational innovation runs the full 4 years.

4.5.8 Hanze University of Applied Sciences Groningen

The Hanze University of Applied Sciences Groningen (Hanzehogeschool) is a large institution in the north of the Netherlands, with a strong focus on honors and over 50 talent trajectories, including talent programs, minors, specializations, projects and the institute-wide Hanze Honours College. All programs are focused on ‘professional excellence’. The institution’s target involves having 6 % of all students in these ‘talent routes’ by late 2015. Hanze wants honors students and teachers to form an ambitious, stimulating community that is connected to regular students, teachers and the field, and shares its knowledge and experiences.

4.5.9 Saxion University of Applied Sciences

Saxion offers honors programs and other ‘pathways to excellence’. The honors programs are 3-year broadening programs of around ten ECTS credits per year, in addition to the regular bachelor program. The program challenges the students to become ‘Reflective Professionals’ with the ability to think transdisciplinary and be bridge builders. Saxion offers nine honors programs in various fields such as entrepreneurship, technology, leadership, care or philosophy. An excellence pathway differs from an honors program: it is an excellence track within the domain of study (the department where the major is taken), focused on deepening knowledge. There is also a special honors program in teacher education at Edith Stein, a school that has recently become part of Saxion. It is called ‘Top Teacher Program’.

4.5.10 The Hague University of Applied Sciences

Since 2010, The Hague University of Applied Sciences (Haagse Hogeschool, HH) offers an honors minor in the study program MER (Management, Economics and Law). This program consists of extra subjects totaling 15 ECTS credits that students can take in their second year. The institution is also developing an Honours College, but this has not yet been realized.

4.5.11 Windesheim University of Applied Sciences

Windesheim offers both the Honours College,⁵⁰ a separate program aimed at an international audience, and an interdisciplinary honors program where a group of honors students analyze a topical question, coming from a company, over a relatively short period of time.

Instruction at Windesheim Honours College occurs in English. Students train to become international project managers, specializing in either Public Health or Communication and Media. The students follow an intensive study program and form a learning community, which means they not only study, but also live together.⁵¹

4.5.12 Zuyd University of Applied Sciences

In close cooperation with the Belgian PXL University College, Zuyd offers a 1-year honors program for health care workers from all over the world. Admission criteria include motivation letters and three letters of recommendation. Teaching is entirely in English.

4.5.13 NHL University of Applied Sciences

The honors program at NHL is built around the idea of ‘community’, called NHL Excellent. This is an institute-wide community, in which students work together and with innovative teachers and lecturers to develop their competencies. Students achieve this goal by working on their own projects, completing assignments for external clients, or participation in projects within research groups. At the end of the program, an integral portfolio assessment determines if the student has shown enough excellence to be awarded an extra diploma.

⁵⁰ See www.windesheimhonourscollege.nl (in English) for more information.

⁵¹ This is an adaptation of a description written by second-year student Elise Eichler, as published in Wolfensberger et al. 2012b, p. 34.

4.5.14 Stenden University of Applied Sciences

A broad honors program has been discontinued at Stenden in 2012, but the university of applied sciences still offers two disciplinary modules aimed at excellent students. They are both focused on mathematics and statistics. Motivated students can apply and then follow the modules on top of their regular program. The first module is Mathematics and Statistics for Business and Economics (in English, 10 ECTS), the second is a pre master module in mathematics (in Dutch, 8 ECTS).

4.5.15 University of Applied Sciences Leiden

In the Honours program at University of Applied Sciences Leiden students form an honors community and work on projects with socially relevant themes. Students in their second year can apply and selection is based on grades, motivation and an interview. The program is co-curricular, takes 3 years and successful participants receive an extra certificate with their diploma.

4.5.16 Breda University of Applied Sciences

Breda University of Applied Sciences (NHTV) started a new honors program in 2013, called ‘The Entrepreneurial Journey’. The 2-year English-language study program helps students to develop the skills and knowledge needed to become an entrepreneur. All students can apply for 30 seats in the program and are selected based on motivation and interviews.⁵² In addition, an upgraded graduation track in Strategic Business Management has been developed, granting students an honors bachelor diploma as well as an entry ticket to several business-related MSc programs at a number of research universities.

4.5.17 HZ University of Applied Sciences

In September 2014, HZ has started the ‘Honours Challenge’ as a pilot project. It is an interdisciplinary project aimed at educating reflective professionals who can work across domains. Students can participate from their second year and are selected based on first-year results, a letter in which they describe their motivation and an interview. Participants form an honors community and follow the project on top of their regular bachelor program.

⁵²An information leaflet in English can be found at <https://insight.nhtv.nl/wp-content/uploads/2013/09/Information-leaflet-honours-program.pdf>

4.5.18 *ArtEZ Institute of the Arts*

ArtEZ is an arts school. Compared to the regular program, the honors program focuses more on theory and research. It is a 2-year program on top of the regular program, with a series of lectures in the first year (some of them on Saturdays) and an individual research project in the second year. Students with good results in the first year can apply with a motivation letter and will then be asked for an interview. The total program involves 30 ECTS credits. Students completing the program earn an extra diploma and a letter of recommendation from the school board.

4.5.19 *Amsterdam School of the Arts*

At Amsterdam School of the Arts (AHK), there is a specific program at the National Ballet Academy. Its Young Bachelor program is ballet at international level. Students can apply to be admitted to this bachelor program while still at secondary school. Contrary to most programs, it is not a separate excellence program, but an existing education program that was already focused on excellence.

4.5.20 *HAS University of Applied Sciences*

At HAS University of Applied Sciences, the honors program consists of interdisciplinary masterclasses for motivated third- and fourth-year students. A masterclass is organized by a lectorate and often based on a topical subject. It consists of six to ten evening meetings with lectures, and a multidisciplinary assignment that students work on in small groups. Students are selected on the basis of motivation. Upon successful participation in one or more masterclasses, they receive a special certificate with their regular diploma. Two to three masterclasses are held per year and on average 25–30 students take part per masterclass.

4.5.21 *Marnix Academie*

The Marnix Academie in Utrecht offers regular teacher education (*pabo*), but also an academic variant, for which only students with a *vwo*-diploma can be admitted. This full 240 ECTS study program is focused on research and design and includes a pre master. Contrary to academic *pabo* programs, this program *Academische lerarenopleiding* (academic teacher education) leads to one diploma and is meant for students who want something different and more challenging than the regular *pabo* program.

4.5.22 Driestar Educatief

Driestar offers teacher education and has developed an honors program for third- and fourth-year students. Participants spend an extra day per week at the school where they complete an internship. This day can be spent for example on research. Focus is on ‘excellent teachers’.

4.5.23 Gerrit Rietveld Academie

The honors program Art and Research is a collaboration between the art school Gerrit Rietveld Academie and the University of Amsterdam. Founded in 2006, it offers extra theoretical input for the art school students, and more creative processes for the university students. A group of around 20 students works on a joint project combining science and art for about 14 months. One of the main ideas is that students contribute to the development of the program’s content as it progresses. The program ends with a joint publication and presentation.

4.5.24 Hogeschool De Kempel

De Kempel offers teacher education and has developed the Challenge Program for talented students. This is a complete bachelor program combining vocational education with academic education through the Open University. After finishing the 4-year program, students can enter an academic master at Open University, or they can continue teaching and are then primary school teachers ‘with a plus’.

4.5.25 Iselinge

Iselinge is a small HEI offering teacher education. Since 2009, Iselinge has a selective full 240 ECTS study program called ‘Academische PABO’ (academic teacher education). Students are selected based on tests, a writing assignment and an interview. They follow a program which includes extra academic modules totaling 40 ECTS, which are offered in cooperation with the Open University. The extra modules are mentioned on the diploma.

The long list of institutes and programs in this chapter shows that honors programs are well-developed in the Dutch context. In all other countries in this study they are rarer, which allowed us some room to discuss the programs in more detail. In the next chapter, we focus on the Netherlands’ southern neighbor: Belgium.

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Chapter 5

Belgium: Complex System, Differentiated Development

5.1 Education System

Basically there is no Belgian education system. Instead, there are three: the Flemish, French and German-speaking communities each have their own.

Belgium consists of three regions and three language communities and has no less than seven governments. Luckily, for education purposes it is quite clear who is responsible. Responsibility has been decentralized to the different communities.¹ This results in three systems: Flemish, French and German-speaking (see Fig. 5.1). As there is only a very limited offer of higher education in the German-speaking community, two systems are relevant for higher education.² In international education comparisons and statistics, the Flemish and French communities of Belgium are usually dealt with separately (Box 5.1).³

Belgians are generally quite happy with their education system. Results are around average in the PISA report on 15-year-olds' achievements, although there are wide variations within the country. For example, science score is an above-average 518 for the Flemish community while the French community scores a below-average 487 (OECD 2013).

All communities have a system with a compulsory primary school until the age of 12, followed by different types of secondary education. Each school type is

¹ Only the determination of the starting and finishing ages for compulsory education, minimum requirements for diploma conferrals and the pension system are still federal matters (Eurydice 2014 – Flemish community overview).

² In the small German-speaking community, there is no university or university of applied sciences. Therefore educational provisions in this community are not discussed in the remainder of this chapter.

³ For example, there are three separate entries in Eurydice's Eurypedia encyclopedia and the Flemish and French communities' systems are also dealt with separately in the World Data on education by UNESCO (IBE reports).

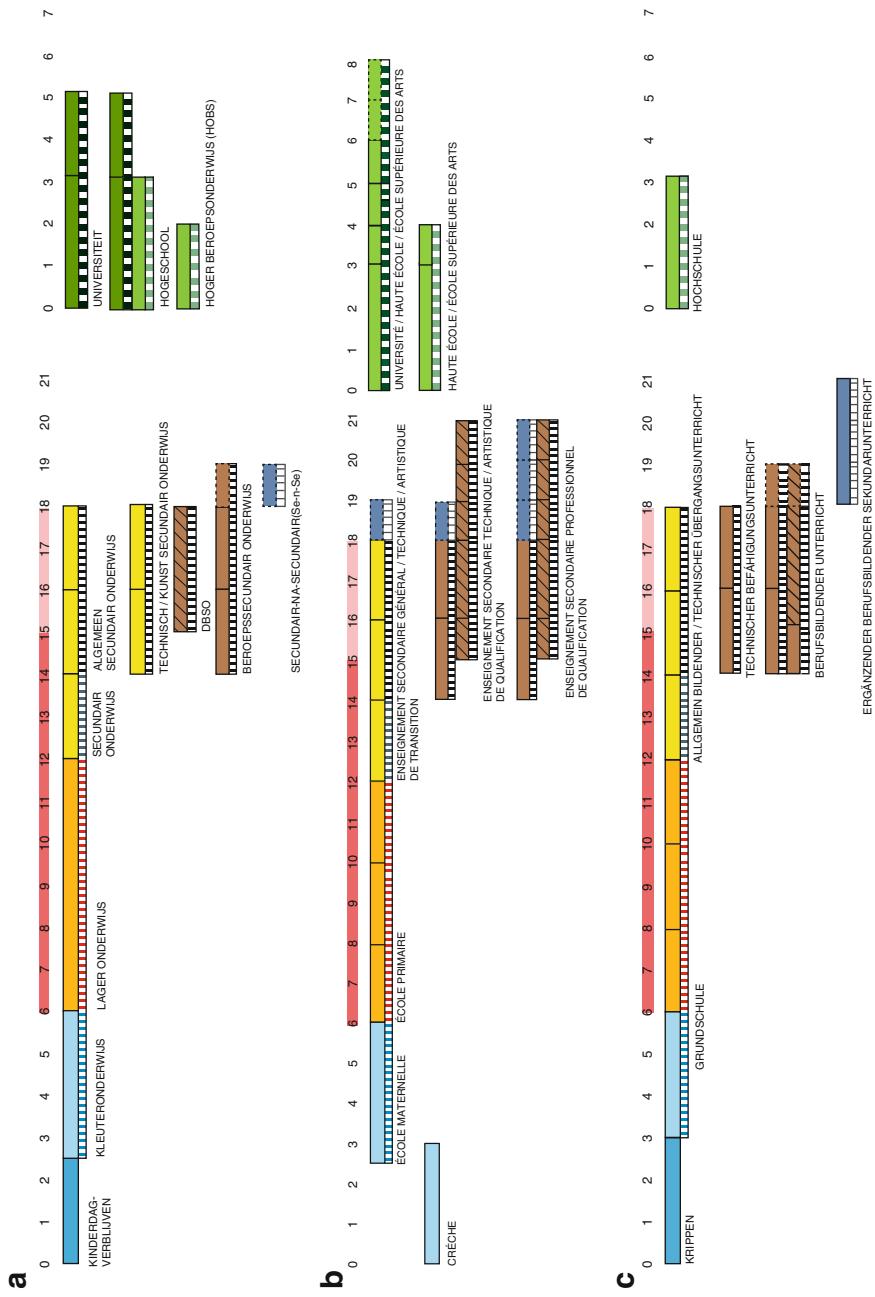


Fig. 5.1 Structure of education systems in Belgium. (a) Flemish community. (b) French community. (c) German-speaking community (Eurydice 2014) see Fig. 3.1b for standardized legend

Box 5.1: Belgium – The Basics

- 11.2 million inhabitants
- Capital: Brussels
- Federal monarchy
- Education is governed by the Flemish, French and German-speaking communities, each with their own government

organized in three ‘cycles’, normally taking 2 years (see Fig. 5.1). After the first cycle of secondary education, around age 14, differentiation is made into four types of education.⁴ From all levels, progression into higher education is possible, but from the vocational stream this is rare (Vlaamse Overheid 2014; Federation Wallonie-Bruxelles 2014) (Box 5.2).

Box 5.2: Education in Belgium

- Compulsory between the ages of 6 and 18 or until graduation from secondary school
- Governed by the Flemish, French and German-speaking communities
- Primary education (6–12 years) and secondary education (12–18 years) each organized in three cycles
- Four general types of secondary education
- Universities in Flemish and French communities, organization of rest of higher education landscape is in development
- Secondary school diploma gives general entrance to higher education, with a few exceptions
- Compulsory education free, higher education tuition fees regulated by governments

⁴ In the Flemish community, the four types are General Secondary Education (GSE) which aims to provide a broad theoretical education and prepares pupils for higher education; Technical Secondary Education (TSE) which focuses especially on general and technical theoretical subjects, provides practical classes and prepares pupils either for a professional career or for higher education; Artistic Secondary Education (ASE) which combines a general and broad education with active artistic practice and prepares pupils either for a professional career or for higher education; and Vocational Secondary Education (VSE) which allows pupils to acquire specific vocational skills combined with a general education. Progression to higher education is possible but rather rare (Eurydice 2014, chapter 6.1). In the French community, focus is more on the stages: From the third year onwards, education takes four different forms (general, technical, artistic and vocational) and consists of two streams (the transition stream and the qualification stream). The transition stream prepares pupils for higher education whilst also offering opportunities to enter the labor market, whereas the qualification stream prepares pupils to enter the labor market while also enabling them to continue their studies in higher education (Eurydice 2014, chapter 6).

Generally speaking, most regular schools recognize high ability with acceleration, enrichment projects and streaming (Freeman 2002a, p. 84). In the Flemish community, an extensive infrastructure for gifted children and youngsters in primary and secondary education exists. There are research centers, such as the Centre for giftedness research in Antwerp, which has recently been renamed Exentra,⁵ different associations focusing on spreading information,⁶ lobbying and/or organizing activities.⁷ While there are no recognized special schools for gifted children, a number of schools run so-called 'kangaroo classes'. Here, gifted children at the school come together 2–4 h per week to work on special projects (Infolijn Onderwijs 2014).

In the French community, a parents' association is also very active.⁸

In general, a secondary school diploma⁹ gives access to higher education. There are a few exceptions, for studies which are very popular. In Flanders, entrance exams are organized for dentistry and medicine. In the French community, some measures restrict student numbers in popular studies such as veterinary science and psychology. For arts colleges, special admission criteria apply.

Belgian universities generally have a good reputation. KU Leuven is the world's oldest surviving catholic university, founded in 1425. In 1970, it was split in a Flemish (Leuven) and a French (Louvain) university. The Flemish part is the largest university in Belgium with over 46,000 students. In international rankings, Ghent and Leuven universities score in the top-100 (ARWU 2013).¹⁰ In the Flemish community, the other main type of higher education institution is locally known as *hogeschool*. In English it is called university college, which can lead to confusion, as they are very different from university colleges in the Netherlands. All recognized Flemish university colleges are associated with a university, following a recent structure change.¹¹

⁵The former name was Centrum voor Begaafheidsonderzoek. The organization's website is www.exentra.be

⁶For example, parents' association Hoogbegaafd Vlaanderen maintains a list of schools that offer extra opportunities to gifted children. It can be found at www.hoogbegaafdvlaanderen.be/06_HB_op_school/scholen.html

⁷For example the organizations Bekina and Mensa (see key links in Appendix 2). More associations can be found in Infolijn Onderwijs 2014.

⁸EHP-Belgique, offering information, lobbying and organizing activities.

⁹*Diploma van Secundair Onderwijs/Certificat d'Enseignement Secondaire Supérieur.*

¹⁰In the 2013–2014 Times Higher Education World Ranking, KU Leuven was the highest-placed at position 60, with Gent following at 83. In the Academic Ranking of World Universities 2013 (Shanghai List) Gent is the best at place no. 85.

¹¹After extensive public discussion, the Flemish government decided in 2010 to integrate the academic university college programmes in the universities from the academic year 2013–2014. Now only the universities will be able to offer academic programs. The university colleges will only be able to offer professional bachelor programs (and associate degrees), as they are to transfer their academic bachelor and master programs to the universities or integrate them in the universities (Eurydice 2014, chapter 7.1). Apart from this, there are some more small 'Registered Institutes of Higher Education'.

In the French community, there are two types of HEIs apart from universities: colleges (*Hautes Ecoles*) and arts colleges. A new system was due to be introduced in late 2014, reforming the structure and organizing the institutes in five geographic clusters (Eurydice 2014, chapter 7.1).

There is one institute recognized by all communities, the Royal Military Academy. Finally, there are some universities that do not fall under Belgian jurisdiction but are recognized in a foreign country: for example Boston University Brussels. These institutions are excluded from this overview.

Contrary to education, research is partly under federal policy and is also conducted at federal scientific institutions. These are regulated by the Belgian Science Policy Office (BELSPO).

5.2 Culture and Policy Towards Excellence

It is difficult to make general statements about Belgium and this also applies to the culture and policy towards excellence. However, three observations can safely be stated:

1. Attention for excellence in Belgium has come later than in the Netherlands;
2. Focus on excellence is stronger in the Flemish community than in the French community;
3. Excellence in education is hardly supported by policy or funding from any level of government (Box 5.3).

Box 5.3: Key Players in Excellence

The following institutions are the most important players in the field of talent and excellence in education:

- The ministries of Education of the Flemish and French communities
- The Interuniversity Councils of both communities
- Exentra, the centre for giftedness research based in Antwerp
- Parents' associations Hoogbegaafd Vlaanderen and Bekina (Flemish) and EHP-Belgique (French)

Belgium exhibits a tradition of egalitarianism, but not as strong as, for example, the Nordic countries. The educational policy goals in the French community refer more to equality measures than in the Flemish community (IBE 2012¹²), where 'a thoroughly personal education' also exists as a main goal.

¹²This follows from a comparison of both communities' texts.

In the Flemish community, the problems of gifted children are a much-discussed subject, but there are no official policies, apart from the legal possibility to accelerate in primary school. In 2006, a group of parliamentarians proposed to make more provisions for gifted children in the schools (Vlaams Parlement 2006), but this was dismissed. As a result no special legislation on excellence in education exists. General legislation allows schools some freedom to organize their own initiatives for talented pupils, but there is no funding available.

The French community first conducted a research project on the needs of gifted children in schools in 1999. Subsequently, an inter-university network¹³ was established with three roles: giving information to the public,¹⁴ facilitating research and disseminating research findings (Brasseur et al. 2001). However, this network was discontinued in 2012 after community funding ended (Fédération Wallonie-Bruxelles 2012). In the same year, three parliamentarians made a proposal to officially recognize the needs of gifted children in schools (Parlement de la communauté Française 2012). In January 2014, a debate was held in the French community's parliament on the question: Why should the specific needs of young people with high potential be officially recognized? No decisions on the issue have been taken at the time of writing (Box 5.4).

Box 5.4: Local Terminology

The word 'honors' is used in Belgium, but there are also other terms in use to refer to (programs for) gifted and talented children and students:

- *enfants/jeunes/élèves/étudiants à haut potentiel* (children/youngsters/pupils/students with high potential)
- *élèves talentueux* (talented pupils)
- *surdoués* (highly gifted)
- *hoogbegaafd* (highly gifted)
- *talentvolle studenten* (talented students)
- *leervoor sprong* ('ahead in learning')

At the universities, there are some specialists in the field of gifted education and talent development. In January 2014, Hasselt University established a chair for the study of gifted children in schools and gifted adults in the workplace (Furniere 2014).¹⁵

¹³ It was called *Réseau interuniversitaire d'écoute et d'accompagnement des jeunes à haut potentiel et de leur entourage*.

¹⁴ This part of the job was carried out in the Centre d'écoute et d'accompagnement des JHP (centre for listening and accompaniment of youngsters with high potential).

¹⁵ Tessa Kieboom, who also leads Exentra, the Centre for giftedness research in Antwerp, was appointed as one of the chairs.

5.3 Honors Programs per University

The higher education sector in Belgium is currently undergoing great reforms. While stability exists at the university level, the educational reform progresses soundly at the level of universities of applied sciences. Therefore, we limited the search for honors programs to the universities. In total, six programs were found, three of which are at Ghent University. An overview of universities with programs is shown on Map 5.1. Table 5.1 depicts all Belgian universities.

Since 2010, Flemish universities have developed honors programs. Some small programs have been running for a few years. The first university-wide program in Ghent started in 2013. So far, the only French university offering an honors program is Université Catholique de Louvain, which participates in an inter-university honors program with two other universities.

5.3.1 Katholieke Universiteit Leuven

Founded in 2013, the honors program at KU Leuven's Faculty of Law strives to acquaint students with top-notch lawyers and broaden their horizons, encouraging them to think beyond law. The top 20 students (measured in grade point average) are invited to participate in the program. Over 90 % of students accept the invitation.¹⁶



Map 5.1 Belgian universities with honors programs, 2014

¹⁶When the slots are not entirely filled, the next top students are invited.

Table 5.1 Honors programs at Belgian universities

University	Community	No. of students ^a	Webpage	Honors program
Katholieke Universiteit (KU) Leuven	Flemish	46,068	Kuleuven.be	Yes
Ghent University (UGent)	Flemish	36,117	Ugent.be	Yes
Université Catholique de Louvain (UCL)	French	25,990	Uclouvain.be	Yes
Université Libre de Bruxelles (ULB)	French	23,968	Ulb.ac.be	No
University of Liège (ULg)	French	19,204	Ulg.ac.be	No
University of Antwerp (UAntwerp)	Flemish	17,166	Uantwerpen.be	Yes
Vrije Universiteit Brussel (VUB)	Flemish	10,427	Vub.ac.be	No
University of Mons (UMons)	French	6,586	Umons.ac.be	No
University of Namur (UNamur)	French	5,646	Unamur.be	No
Hasselt University (UHasselt)	Flemish	2,987	Uhasselt.be	No ^b
Saint-Louis University Brussels	French	2,583	Fusl.ac.be	No
Total		196,742		

^aSources: Vlaamse Overheid 2014 for Flemish universities (numbers for 2013), CREF 2014 for French universities (numbers for 2010). Numbers for Université de Mons include Université de Mons-Hainaut and Facultés Universitaire Catholique de Mons (FUCaM)

^bAt Universiteit Hasselt, an honors program is in development

To compile this table, first the websites of all universities were searched with keywords to find honors programs. Then they were all approached by e-mail and/or phone to ask if they had any special provisions for talented students, matching our working definition. All institutions eventually replied. Most of this work has been carried out by honors student Melina Ghassemnejad

Apart from the top 20, there are also five ‘wild card slots’. They are meant for students who do not score as high but are socially involved either in- or outside the university. These students are selected on the basis of a cover letter describing their motivation. During the academic year, students participate in eight interactive, work field-related honors classes, provided by well-known lawyers and scholars. There are also excursions to national or international institutions. Upon successful completion of the program, the participants receive an extra certificate. KU Leuven explicitly refers to ‘the Dutch tradition’ in their description of the honors program.¹⁷ In autumn 2014, the program expanded because of its success. In addition to last-year bachelor students, it now includes first-year master students (Table 5.2).

¹⁷ See www.law.kuleuven.be/home/onderzoek/nieuws-onderzoek/honoursprogramma_2013

Table 5.2 Katholieke Universiteit Leuven – Honoursprogramma

<i>Organizing institution</i>	Katholieke Universiteit Leuven, Faculty of Law
<i>Form</i>	Disciplinary program
<i>Target group</i>	Final (third) year bachelor students, first year master students from autumn 2014
<i>Admission</i>	By invitation and application
<i>Description</i>	Each year a group of 20–25 students is formed and follows two semesters of activities
<i>Founded</i>	2013
<i>Participants</i>	20–25 per year
<i>Website</i>	www.law.kuleuven.be/home/onderzoek/nieuws-onderzoek/honoursprogramma_2013

Table 5.3 Ghent University – Quetelet Colleges

<i>Organizing institution</i>	Ghent University
<i>Form</i>	Interdisciplinary program (university-wide)
<i>Target group</i>	Second- and third-year bachelor students
<i>Admission</i>	First selection based on study results, CV and motivation letter, followed by interview
<i>Description</i>	Each year a group of maximum 50 first-year students is selected to run activities over four semesters in their second and third bachelor year
<i>Founded</i>	2013
<i>Participants</i>	50 admitted per year
<i>Website</i>	www.ugent.be/student/nl/studeren/honoursprogramma/universiteitsbreed-programma

5.3.2 *Ghent University*

5.3.2.1 General

The Quetelet Colleges is a new university-wide program, the first of its kind in Belgium. All first year bachelor students may apply. Admission is based on grades and a cover letter, and finally an interview. In the Quetelet Colleges students participate in four modules spread over the second and third bachelor year. Every module consists of ten lectures, with a new theme every week. The specialist lecturer provides knowledge and insights and also discusses with the students. The theme of the first module is: ‘What is science?’ The second module revolves around ‘Science & Society’, and the third module is ‘The revolutions of the 20th century’. During the last module ten scientific or societal challenges of the twenty-first century are discussed. The students themselves put the last module together. To complete the program, students must attend all lectures, participate in discussions and write two short papers for each module. Upon completion of the program, students receive a certificate and a personalized letter of recommendation from the university rector (Table 5.3).

5.3.2.2 Specific

Before starting the university-wide program, Ghent University already had some departmental honors programs. The first is the interfaculty honors program in Life Sciences, in which different departments in this area work together in a program focused on scientific research. The second is the Honors Awards in Sciences program, focusing on broadening and deepening the studies. Students in both programs work individually.

The honors program in Life Sciences includes both general and specific components. The general part consists of lessons, lectures, and self-study. The lessons take place in the first semester. The specific part consists of project-related laboratory work and writing a scientific paper. Laboratory work can also be done abroad, for example in developing countries. Upon successful completion of the program, students receive a special certificate (Tables 5.4 and 5.5).

Table 5.4 Ghent University – Honors Program in Life Sciences

<i>Organizing institution</i>	Ghent University, Faculties of Veterinary Medicine, Medicine and Health Sciences and Pharmaceutical Sciences
<i>Form</i>	Interfaculty program – individual
<i>Target group</i>	Top 20 % bachelor students
<i>Admission</i>	First selection based on study results, CV and motivation letter, followed by interview
<i>Description</i>	Individual program where student does own research project in approximately 1 year: following lectures, lab work and writing of a scientific article, supported by personal tutor
<i>Founded</i>	2012
<i>Participants</i>	23 at time of writing
<i>Website</i>	www.ugent.be/ge/nl/voor-studenten/uitwisseling/honoursprogramme.pdf

Table 5.5 Ghent University – Honors Award in Sciences program

<i>Organizing institution</i>	Ghent University, Faculty of Sciences
<i>Form</i>	Faculty program – individual
<i>Target group</i>	Bachelor students, from second year
<i>Admission</i>	Invitation based on study results, selection based on plan and motivation letter
<i>Description</i>	Students make an individual plan, which consist of two parts: a research project they set up on their own (supervised by a tutor) and a series of courses in a different study program than their own. End product is a paper or presentation.
<i>Founded</i>	2012
<i>Participants</i>	Unknown
<i>Website</i>	www.ugent.be/we/nl/onderwijs/has

5.3.3 *University of Antwerp*

Founded in 2011, the Honours College at the University of Antwerp focuses on the department (faculty) of Pharmaceutical, Biomedical and Veterinary Sciences. There are plans to offer a university-wide honors program in Antwerp (Gazet van Antwerpen 2012), but this has not started yet.

The goal of the Honours College involves allowing ‘talented students to reach their maximum potential’. Each year, all students who have obtained all their credits in their first year and scored at least ‘good’¹⁸ are invited for an information session at the start of their second year. Interested students apply with a cover letter describing their motivation; eventually 12 students are selected. Candidates must be motivated, have a broad academic interest, be ambitious and accept the challenge of doing ‘a whole lot of extra’. In their first semester, the theme is ‘exploring scientific research’. In their second semester and following summer vacation they undertake an individual honors research project, which is usually conducted during an internship. During the third and fourth semesters, students follow a series of interdisciplinary lectures and debates about science and society and also write a paper. Finally, students develop the results they obtained during the research project in further detail and present them in writing or verbally. This presentation could take the form of a discipline-oriented symposium or a 1-day congress, including a poster or an oral presentation, or of a scientific article, review or protocol. Upon successful completion, participants receive an extra certificate (Table 5.6).

Table 5.6 University of Antwerp – Honours College

<i>Organizing institution</i>	University of Antwerp, Faculty of Pharmaceutical, Biomedical and Veterinary Sciences
<i>Form</i>	Disciplinary program
<i>Target group</i>	Second-year bachelor students
<i>Admission</i>	Invitation/application/selection
<i>Description</i>	Each year a group of 12 students is formed which runs activities over four semesters and one summer
<i>Founded</i>	2011
<i>Participants</i>	24 in total, 12 per year admitted
<i>Website</i>	www.uantwerp.be/en/faculties/fbd/education/honours-college/

¹⁸In the Flemish system of grading, students can fail, pass, or get one of three levels of distinction, which roughly translate to good, very good and excellent. The first level of distinction (‘good’) is required to qualify for this program.

Table 5.7 Université Métropolitaine – Honours College

<i>Organizing institution</i>	Special collaborative project between KU Leuven – KULAK, UCL Mons and French university PRES Université Lille Nord de France
<i>Form</i>	Interdisciplinary program
<i>Target group</i>	Second- and third-year bachelor students
<i>Admission</i>	Application/selection
<i>Description</i>	Each year a group of maximum 40 students is formed who will follow summer school and work on a project and run activities during the academic year
<i>Founded</i>	2012
<i>Participants</i>	23 (academic year 2013–2014)
<i>Website</i>	www.metropolitanuniversity.eu

5.3.4 Inter-university Program

The Université Métropolitaine – Honours College is an extra-curricular program combining the development of scientific skills with discovering the borders with other disciplines. The program includes multiple partners; KU Leuven (KULAK campus), Université Catholique Louvain (UCL) in Mons and French university PRES Université Lille Nord de France. Together, they started an institute called Metropolitan University, which organizes the program. Forty spots annually exist, 10 for Mons, 10 for Leuven and 20 for Lille. Students from every discipline who are in their second or third bachelor year can apply. Selection is based on study results, motivation and language knowledge. Every institution organizes the selection for its own students. After the group is formed, they kick off with a 4-day summer school. Then they enter a ‘broadening module’. Under guidance of a professor, students work in a group around one of the themes of the summer course with the ultimate goal of writing a scientific article. Upon successful completion of the program, students receive a certificate signed by the three partner institutions (Table 5.7).

We have seen that honors programs are already developed at some Belgian universities and more may follow in the coming years. We now move to the last country in the Benelux: Luxembourg.

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¹⁹ **Note:** Literature used to prepare this book is included on this list. Some of the entries are in local languages and have not been read completely by the researchers. Instead, they have been searched with keywords to retrieve relevant information.

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Chapter 6

Luxembourg: Small, Multilingual and International

6.1 Education System

Luxembourg has the highest share of students who do not speak the language of instruction at home and the highest number of foreign languages learnt per student. The annual taught time for foreign languages exceeds those of all other countries. (Eurydice and Eurostat 2012)

Luxembourg is a small country with just over half a million inhabitants who speak multiple languages. Luxembourgish (*Lëtzebuergesch*), the native language, exists alongside the official governmental language French, and German which is widely used and taught in schools (e.g., for alphabetization). This multilingualism represents an important theme in education: over 40 % of time is spent on foreign languages in primary education.¹ According to University of Luxembourg researcher Antoine Fischbach, ‘alphabetization happens in German as if German were the students’ mother tongue (which it is not for about 99 %). Luxembourgish is used as a language for “integration” and French is taught in a kind of integrative approach (not mother tongue and not foreign language either).² English is taught as a true foreign language. While German is the main language of instruction in elementary school and lower secondary education, most subjects in higher secondary education are taught in French (Eurydice 2014 – overview, Grand-Duché de Luxembourg 2012). The diversity of languages presents difficulties for all students, but especially for immigrant children who speak yet another language at home. At the University of Luxembourg, teaching occurs in English, French and German (Boxes 6.1 and 6.2).

The second important theme in Luxembourgish education involves international focus. At all levels, around 50 % of pupils are foreign nationals. In many cases,

¹This is very high in comparison to other countries: the number is under 15 % in all other European countries. See Eurydice and Eurostat 2012, p. 12. Note that foreign language is defined as a language not usually spoken at home.

²Personal communication from Dr. Antoine Fischbach, research scientist at University of Luxembourg, May 2014.

Box 6.1: Luxembourg – The Basics

- 0.5 million inhabitants
- Capital: Luxembourg
- Grand-duchy
- Luxembourgish, German and French are official languages
- 43 % of inhabitants are foreign nationals
- Social-democratic/green/liberal coalition in power

Box 6.2: Education in Luxembourg

- State education free at all levels
- Compulsory from age 4 to 16
- Primary education until age 14, mostly in German
- Two types of secondary education: general and technical, mostly in French
- One university, with selective access to certain study programs
- Around half the pupils at all levels have foreign nationality
- Primary and secondary education administered by Ministry for Education and Youth, higher education by Ministry for Higher Education and Research

these children do not have one of Luxembourg's languages as their mother tongue, which increases the number of languages these students must learn to at least four. National and foreign pupils are not equally represented in the different types of education, with foreigners overrepresented in the more vocational types (See Ministère de l'Éducation nationale, de l'Enfance et da la Jeunesse 2014³). To adapt to the needs of the pupils and taking into account the small size of the country, Luxembourg 'developed a range of measures allowing its residents to enroll in education and training in the Greater Region⁴ or in other foreign countries. Especially in the field of higher education, a strong tradition of educational mobility has thus been established' (Eurydice 2014 – overview). One additional reason for this mobility is the simple fact that no university existed until the University of Luxembourg was founded in 2003 (see below).

Primary level, called *enseignement fondamental*, lasts until the age of 14. No differentiation between pupils on the basis of academic abilities is made (see Fig. 6.1).

³ In secondary education, foreign nationals make up around 20 % of pupils in the general secondary education and over 40 % in technical secondary education.

⁴ In the Greater Region of Luxembourg, a number of regions in Belgium, Germany and France cooperate with Luxembourg on economic and cultural subjects. Apart from the Grand-Duchy of Luxembourg, the region includes Wallonia and the German-speaking region in Belgium, the Länder of Rheinland-Pfalz and Saarland in Germany and the region Lorraine in France.

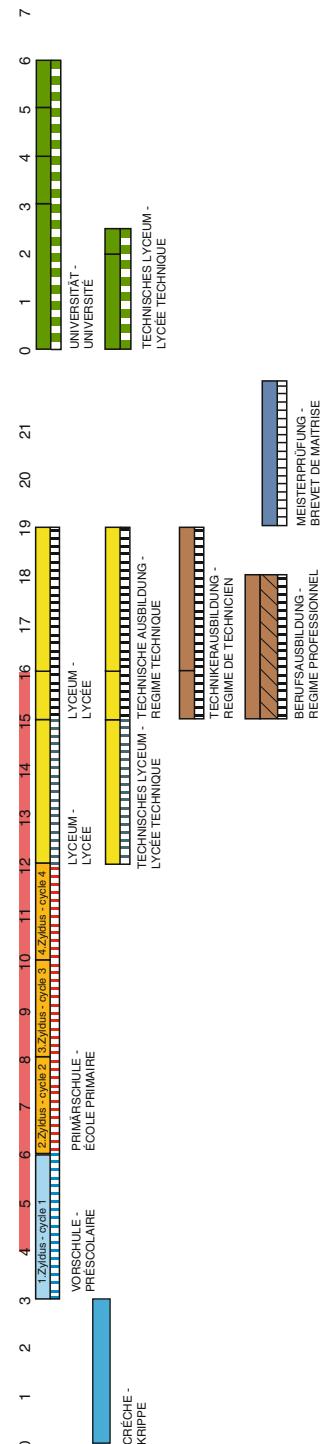


Fig. 6.1 Structure of the Luxembourgish education system (Eurydice 2014) see Fig. 3.1b for standardized legend

Secondary level (*enseignement secondaire*) becomes split in the general *lycée*, preparing for university, and the *lycée technique*, mostly preparing for vocational education.⁵ A number of private and international schools, mainly aimed at the expat community in Luxembourg, also exist. Around 13 % of all pupils are in private education, 90 % of which are foreign nationals (Ministère de l'Éducation nationale, de l'Enfance et da la Jeunesse 2014).

State lycées generally educate for a diploma called *baccalauréat*, which is also known in neighboring countries and makes admission into foreign universities easy for students from Luxembourg.⁶

Luxembourg has one university taking undergraduate students within its borders: the University of Luxembourg (UL).⁷ In 2003, UL formed when several smaller institutions merged. Over half of the approximately 6,200 students come from foreign countries and thus the university has an extensive admission scheme.⁸ Local students can enter with their high school diploma, which grants general access to higher education. However, for certain courses student numbers are restricted. The selection process depends on the specific program. For example, a bachelor in information science selection focuses on grades with particular emphasis on science grades, and for a bachelor in psychology selection occurs through a personal interview (see Eurydice 2014, chapter 7.2.1 and University of Luxembourg 2014 for more details) (Box 6.3).

Box 6.3: Local Terminology

The word 'honors' is not used in Luxembourg. Due to its multilingualism, different terms are used to refer to gifted and talented pupils:

- *élèves à haut potentiel* (pupils with high potential)
- *élèves talentueux* (talented pupils)
- *begabt* (gifted)
- *leistungsstark* ('strong achievements')

⁵The highest track of the lycée technique prepares for university as well.

⁶Technical lycées have their own programs, which lead to a diploma called *Brevet de Technicien Supérieur*.

⁷Apart from the University of Luxembourg, there is also the Institut Universitaire International Luxembourg (IUIL), which is not taking undergraduate students, but focuses on continuing education and applied research. There is also a small number of foreign institutions with a campus in Luxembourg. These include:

- the private Brussels Business Institute for Higher Education focuses on tourism and hospitality and has a campus in the castle of Wiltz. It can award BA degrees recognized by the Luxembourg government;
- the European Center of the American Miami University;
- a college of business belonging to the Sacred Heart University, also from the USA.

⁸The University of Luxembourg actively takes part in EU exchange programs like Erasmus. Local bachelor students are required to spend a semester abroad.

6.2 Culture and Policy Towards Excellence

Providing special opportunities to talented students is not a focus point in Luxembourgish education policy. Instead, policy focuses on languages and on the relations with other countries, facilitating the flow of students to and from Luxembourg. Excellent students can distinguish themselves by participating in programs to study abroad. The university also has a number of other ways to stimulate excellent students. Since 2007, the Top Student Prizes are awarded annually to nine of its best students. The university is divided into three departments (faculties) and three students from each faculty are chosen.⁹ The prize differs each year. In 2013, it was a 3-week summer school in Asian studies at Sophia University in Tokyo, Japan. In 2012, the best 18 students from the two previous years travelled to China for a month-long course in Chinese language and culture (University of Luxembourg 2013). Other awards for excellent students include scholarships to study abroad, for example grants to study in the USA funded by the American embassy (Box 6.4).

Box 6.4: Key Players in Excellence

The key players in excellence in education in Luxembourg are:

- The Ministry for Education and Youth
- The Ministry for Higher Education and Research
- Centre for Documentation and Information on Higher Education
- The University of Luxembourg

The university also runs some programs for talented secondary school students. In the Uni@Lycées program, university professors visit a school to give a lecture in their subject and discuss it with students. To take part, students must send a motivated application letter.¹⁰

Additional provisions exist for talented children in primary and secondary education. Schools in Luxembourg ‘are allowed to individually develop special programs for groups of gifted pupils’ (Ziegler et al. 2013, p. 391). Children with good learning abilities can start primary education a year early and/or skip classes (Eurydice 2014, chapter 5.3). There are also some programs for children with higher abilities, especially in science subjects. One example is the enrichment program at a lycée in Diekirch (Lycée classique de Diekirch 2013), where smart students receive extra challenges in- and outside the school.

⁹Personal communication from Jenny Hällen Hedberg, Head of international relations at University of Luxembourg, March 2014.

¹⁰More information at wwwen.uni.lu/universite/science_public/uni_lycees

Lycées can also apply at the ministry for funding for an extra project outside the regular curriculum. Such projects are called *projets d'établissement*. They are used to inspire and motivate students and some of them are specifically aimed at high-potential students (CCPE 2013).

Broadly speaking, however, no clear policy on the subject of excellence in higher education exists.

6.3 New Developments

Two recent developments may serve as a ‘trigger’ to develop policy on the issue of excellence in education: the 2012 PISA results and the recent installation of a new government.

Luxembourg took part in the PISA research on competences of 15-year-olds since 2003. In all years, Luxembourg scored around or below the OECD average for all subjects (OECD 2013¹¹). The results have prompted renewed discussion about the multilingualism in schools where the government has been studying new policy options (Ministère de l’Éducation nationale et de la Formation professionnelle and Université de Luxembourg 2013, p. 160).

At the time of writing, a new government had recently been installed in Luxembourg, for the first time without the christian-democratic party.¹² It remains uncertain yet what consequences this will entail for policy towards higher education.

This concludes our overview of Luxembourg, as there are no honors programs at the single university in the country.

Concluding our discussion of the Benelux countries, we found honors education highly developed in the Netherlands and starting to develop in Belgium. The Netherlands and Flanders share the same language and this facilitates easy sharing of information about the development of honors education. Also, the local culture towards excellence seems to develop in similar ways, although government support is mostly lacking in Flanders. In the Walloon region of Belgium and Luxembourg, some facilities to promote talent development in compulsory education were found, but apart from the inter-university program Université Métropolitaine, no honors programs have developed yet.

We now move to the north of Europe, to discuss the situation in the five Nordic countries.

¹¹The trend in the 2012 results is slightly upwards. The reading score improved by 16 points compared to 2009, but is still below average.

¹²The new government came into power in December 2013. Claude Meisch is the new minister for both the Education and Youth ministry and the Higher Education and Research ministry.

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¹³**Note:** Literature used to prepare this book is included on this list. Some of the entries are in local languages and have not been read completely by the researchers. Instead, they have been searched with keywords to retrieve relevant information.

Part III

The Nordic Countries



Map III.1 The Nordic countries

While many people know the term Scandinavia, the cooperating countries in the north of Europe prefer the term ‘Nordic’. This term refers to Denmark, Finland, Iceland, Norway and Sweden.¹ All countries score high on indexes of human development and wealth. They also have related traditions and intensive political cooperation. The common heritage, culture and educational tradition lead to a comparable view towards excellence, even though there are huge differences in the development of honors education between the countries.

Common Heritage and Cooperation

The Nordic countries share a large part of their history. While the individual countries have existed in different forms and unions for many centuries (Nordic Council 2014),² the current division in countries was finalized only in the first decades of the twentieth century. This common history is partly expressed in languages: Danish, Norwegian, Swedish and to a lesser extent Icelandic are closely related.³

After World War II, the Nordic countries started intensive forms of cooperation. They form a passport union since 1958, have a common labor market and guarantee free movement of citizens. These practices are regulated by the Nordic Council (for interparliamentary cooperation) and the Nordic Council of Ministers (for intergovernmental cooperation).⁴ These councils make common policies and have a budget for projects that facilitate cooperation between the countries.

Culture Towards Excellence

All the Nordic countries have a twentieth century tradition of focusing on equal opportunities, equity and equality.⁵ In popular language, this egalitarianism gains expression in the Law of Jante.⁶ Taken from a 1933 novel by Danish-Norwegian

¹ It also refers to the autonomous regions of Åland, the Faeroes and Greenland, which fall outside the scope of this research.

² Sweden and Norway formed a united kingdom between 1814 and 1905 while Iceland was dependent upon Denmark. Denmark, Norway and Iceland were ruled in a personal union from the sixteenth century. And before that, in the fifteenth century all countries were united in the Kalmar Union. See Nordic Council 2014 for more information on Nordic history.

³ While Finnish is completely different, Swedish is an official language in Finland and a compulsory subject in schools.

⁴ The Nordic Council was introduced in 1952. In 1971, the Nordic Council of Ministers was formed.

⁵ This can partly be explained by the strong position of socio-democratic parties in all countries. They came up in the early twentieth century and with these parties in power, welfare state provisions were developed throughout the twentieth century.

⁶ The Law of Jante is *Janteloven* in Danish and Norwegian and *Jantelagen* in Swedish.

author Aksel Sandemose (Sandemose 1970 [1933]),⁷ the concept suggests that the culture within Scandinavian countries discourages people from promoting their own achievements over those of others (Scott 2013, see also Persson et al. 2000, p. 718). In the novel, ten rules are mentioned that all basically amount to the same: 'you are not to think you are special or that you are any better than us'. This idea strongly influences the Danish, Swedish and Norwegian societies and becomes visible in the university system.⁸ Different interviewees spontaneously referred to it when asked about the local culture towards excellence.

Swedish gifted education researcher Roland Persson thinks these ideas go back even further. Referring mostly to Denmark, Norway and Sweden he states that 'the strict notion of equality and social collectivism at all levels of society, is best understood as an inherent cultural characteristic in which certain political ideals have merged with indigenous traditions and sentiments, which draw on historical facts and events dating from early medieval times and possibly even earlier' (Persson 2009, p. 4).

The situation for Iceland and especially Finland presents itself differently, due to uniqueness in tradition: 'Individuality and freedom of choice are emphasized more strongly in the Finnish school system than in any other Scandinavian country' (Persson et al. 2000, p. 720).

However, the principle of equality is very visible in the structure of the education systems in all Nordic countries. Two important common features are:

1. No tuition fees are charged: (state) education is offered free at all levels, including higher education;
2. Compulsory education is organized in only one type of school (single structure education). A government-funded comprehensive school is available⁹ for primary and lower secondary education. This school runs from age 6 or 7 to age 15 or 16.

After this, upper secondary education is offered at different levels. The rules governing admission to higher education differ between the countries.

⁷ Sandemose was born in Denmark and has a Danish father and Norwegian mother. He migrated to Norway in 1930 and there the book was first published in 1933. It was later reprinted with a new foreword by the author.

⁸ Recently, German university professor Linda Maria Koldau published a trilogy called 'Jante University. Episodes from Life behind the Wall', giving a (fictional) insight in what university life is like in a new public management university based on this law. The book is based on her experiences at a Danish university.

⁹ In all Nordic countries private education also exists alongside the state system, but everywhere the great majority of pupils attend state schools. More info about private education follows in the country chapters.

Nordic Collaboration in Talent Development

Education is one of the areas of cooperation in the Nordic Council. At the higher education level, this takes shape in the Nordic Master programs. Since 2007, Nordic higher education institutions can apply for a subsidy to develop a master program which includes university courses from at least three countries (see Nordic Council of Ministers 2014¹⁰).

There has also been some effort to develop Nordic cooperation in the field of talent development. Denmark initiated a Nordic talent seminar in November 2007. At that time, the Danish organizers concluded that ‘there are many enthusiasts and local talent development projects in the North, but none of the other Nordic countries have yet developed a formal talent development policy’ (Folketinget 2008).¹¹

In recent years, Denmark has been at the forefront among the Nordic countries in talent development. In August 2013, researchers interested in talent support and excellence in education in the Nordic countries gathered in Denmark and started the Nordic Talent Network. They wrote a manifesto stating the need to make provisions for the talented in the education system in the Nordic countries (Nordisk Talentnetværk 2013).¹² The network creates possibilities for more effective lobbying. In Boxed text III.1 below, network coordinator Uffe Sveegaard elaborates on the background of the network.

Box III.1: ‘Denmark Has a Ten Year Lead on Talent Development in the Nordic Countries’

Interview Uffe Sveegaard, coordinator Nordic Talent Network, based at ScienceTalenter, Denmark

‘In the Nordic countries we have a tradition of being social-democratic countries where equity has been the leading factor. You couldn’t make special provisions for the very skilled ones [in education]. That would be considered very wrong. Of course you could do that within arts, or football. In sports, everybody knows and accepts that in order to be part of the national team you need to be very skilled. And if you go to the Royal Conservatory to play the violin, you are of course expected to receive an elite training. So everyone agrees to make provisions for the very talented in arts and sports, but never in

(continued)

¹⁰These are English-language programs covering at least 120 ECTS.

¹¹The seminar was organized on the initiative of the Danish Ministry of Education, supported by the Nordic Council of Ministers.

¹²The full manifest is published in Danish only.

the education system. The [intellectually] skilled children in Denmark were supposed to manage on their own, because it was said that intelligent children are never bored. (...) That has been the attitude. The same goes for the other Nordic countries.'

'But in 2004, Denmark was hit by globalization. Everybody in the political system was suddenly saying: "what are we going to do about this global competition?" The Danish ministry of Education then launched a task force to look into provisions for talented children. It turned out that nothing happened. Then the minister launched TalentCamp05. He invited 48 experts within education, business, arts, sports and so on to be together for 48 hours and have brainstorms about making provisions for the talented and gifted. After Talent Camp 05, (...) more and more politicians and teachers in Denmark have come to the conclusion that you really need to do something for the very skilled and talented. It is a slow turn, but now in Denmark we are the pioneers for the Nordic countries for this agenda.'

'Now we are also trying to launch a Nordic cooperation [The Nordic Talent Network]. It is a huge task (...). In August 2013 we had fifty to sixty people from the Nordic countries here to talk about talent development. This shows that they are aware of this agenda and want to adopt it. (...) I think Norway, Sweden and Finland will slowly come along. They are now where we [in Denmark] were ten years ago.'

In the next chapters, the differences between the Nordic countries in the development of talent in general and honors programs in particular will become clear. We first look at the country that is taking the lead in these developments: Denmark.

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Chapter 7

Denmark: Strong Focus on Talent Development

7.1 Education System

Education seems almost to have attained the status of a national religion in this country. The Danes cannot provide enough of it or get enough of it. (NCEE 2006, p. 2)

The Danes are prepared to spend a lot of money on an extensive education system. In 2010, Denmark used 8.8 % of GDP on education – together with Norway the most of all OECD countries (OECD 2013, p. 218). As a result, Denmark has a well-educated population. But another result is that Danish students traditionally enter the labor market at a relatively high age (Undervisningsministeriet 2010, p. 91). The average age of students *starting* a university bachelor was 24.9 years in 2008, while the average age to *finish* a bachelor was 29.5 years.¹ The Danish government wants young people to start their working careers earlier, they achieve this (among other things) by putting more focus on talent development. Focus on this issue has increased greatly in the last decade, although it is not evenly distributed across the educational levels (Box 7.1).

The average age of students *starting* a university bachelor was 24.9 years

The basic structure of the Danish education system is quite simple (see Fig. 7.1). At the age of six, children go to school and start with a compulsory preschool class year.² Afterwards, the integrated primary and lower secondary school (*grundskole*) lasts 10 years. Nine years are compulsory and the tenth grade is optional

¹Ibid. In Denmark it is quite common to take a 'break' between upper secondary and higher education. On average, a student completing a master's degree has used 4.3 years of extra time (see also Sirius Programma 2012).

²This is known as 0th grade.

Box 7.1: Denmark – The Basics

- 5.6 million inhabitants
- Capital: Copenhagen
- Constitutional monarchy
- 5 regions, 98 municipalities
- Social-democratic coalition in power

(Undervisningsministeriet 2010, p. 6³). Most children go to a municipality-run school, known as *folkeskole*.⁴ There is a national exam at the end of grade nine of *grundskole*, and another one at the end of grade ten. It is not compulsory to participate in a ‘leaving examination’ as it is locally known, but nearly everyone does because exam results show a successful completion of the compulsory school period (Box 7.2).

Box 7.2: Education in Denmark

- Free at all levels
- Ten years compulsory from age six
- Integrated primary and lower secondary school in *grundskole*
- Four types of upper secondary school
- Four types of higher education institutions
- Higher education admission based on grades
- Ministry of Education responsible for primary and secondary education; ministry of Higher Education and Science responsible for higher education

At the end of *grundskole*, pupils are around 16 years old. Most of them then move on to one of the four types of upper secondary education,⁵ which usually lasts

³About half of the children elect to take 10th grade, while others mostly go on to upper secondary education after 9th grade.

⁴Apart from the municipal *folkeskole*, pupils can also attend private and/or independent basic schools, generally called *friskole*. These schools generally offer all grades. For the grades 8–10, pupils can also choose private ‘continuation schools’, often boarding schools. In the year 2008, there were 704,000 pupils in basic school. Of these, 82 % attended a municipal basic school, and 14 % the private basic schools, while 4 % attended a ‘continuation school’ (Undervisningsministeriet 2010, p. 6).

⁵The four levels of upper secondary education are: Gymnasium (STX) offering 3 years of general education which can be entered after 9 years of basic school; HHX (Higher Commercial Examination Programme), 3 years after grade 9, focus on economic subjects; HTX (Higher Technical Examination Programme), 3 years after grade 9, focus on technical subjects and finally

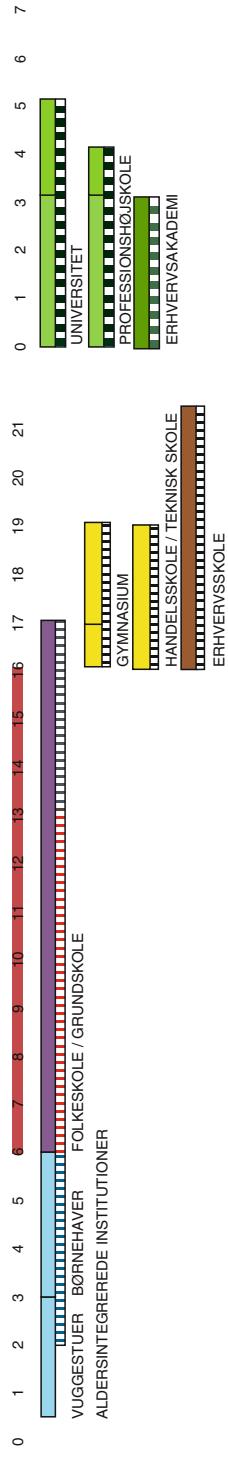


Fig. 7.1 Structure of the Danish education system (Eurydice 2014) see Fig. 3.1b for standardized legend

3 years. At the end of the last year, pupils take examinations in Danish and other subjects studied at the highest level.⁶ Students who pass these exams successfully possess the basic qualifications to go on to higher education.

A secondary education diploma does not guarantee a place in higher education. Admission depends on the number of 'student seats' available. For every study program at a higher education institution, a maximum number of students is set. For some studies this number is decided centrally by the ministry,⁷ for others it is set by the institution. Admittance is coordinated nationally through the agency *Optagelse*.⁸ They process all applications and the students with the best Grade Point Average (GPA) get placed first. A cut-off mark (the minimum GPA needed to get in) is set for each study program in each institution. This can differ greatly, for many studies all applicants find seats or are 'taken up' (as it is called locally), while for popular studies the cut-off mark may be close to the maximum possible GPA. Students can get some idea of their competitiveness for a certain study by looking at the published cut-off marks of previous years (Ministeriet for Forskning, Innovation og Videregående Uddannelser [Denmark] 2013).⁹ For some studies additional criteria are also set by the HEIs, such as prerequisite subjects, minimum marks in these subjects, or work experience (Nuffic 2013, p. 8).

Higher education in Denmark is free, although students have to pay for books and teaching materials. Students may apply for government support grants, known as *Statens Uddannelsesstøtte* (SU). These grants are quite generous, compared to most other countries.¹⁰ In 2011, around 4.7 % of Denmark's population was in tertiary education, which is slightly above EU average.¹¹

The Danish higher education system has developed rapidly in the last decade. The Bologna Process has been combined with extensive reform of the whole tertiary education sector (Danish Ministry of Science, Innovation and Higher Education 2012; Nuffic 2013). The higher education landscape now consists of four types of institutions (Danske Universiteter 2013a, b; see Box 7.3). The Danish research universities generally have a good reputation and feature quite

HF (Higher Preparatory Examination). This is a 2-year program that can be entered after completing 10 years of basic school.

⁶ Subjects can be followed at three levels: A, B and C. The level here corresponds to the number of hours of education received in the subject. A-level refers to the highest number of hours.

⁷ Courses with centrally decided numbers of seats include the medical, veterinary, dentistry, and nursing schools (Undervisningsministeriet 2010, p. 16).

⁸ Optagelse is a joint service by the ministries for Education and Science, Innovation and Higher Education. It literally means 'taking up'.

⁹ A complete overview of the number of students seats and cut-off marks for all higher education study programs in Denmark is published each year by the ministry on its website, so that students can get an idea of their chances in applying for a certain place. This publication is known as *Hovedtal*.

¹⁰ All students receive the same *Statens Uddannelsesstøtte* (SU). For students living on their own, aged 20 and older, this constitutes a monthly income of just over 5,800 DKK, around 780 euros (amounts for 2014).

¹¹ See Fig. 2.1 in Chap. 2 for a comparison of all countries in this book.

prominently on international rankings.¹² At the research university level, it is not common to quit studying after receiving a bachelor diploma. Most students continue in a master program.¹³

Box 7.3: Danish Higher Education Landscape

- 8 Research universities (5 general and 3 specialized);
- 8 University Colleges (*Professionshøjskole*), mainly offering professionally oriented bachelor programs;
- 13 Specialized universities in arts, music, architecture, etc.;
- 8 Academies of Professional Higher Education (*Erhvervsakademi*) – short-cycle higher education that will lead to special diploma not equivalent to bachelor

7.2 Culture and Policy Towards Excellence

The Danish culture traditionally focuses on equivalence, as shown in the Law of Jante which is relevant to all Nordic countries but is based on a description of a small Danish town.¹⁴

Specifically for Denmark, the ideas of nineteenth century philosopher NFS Grundtvig are still influential in shaping the line of thinking in basic education and the general pedagogical culture. In his time, education in Denmark was reserved for the elite. Grundtvig opposed this and established a number of folk high schools, focusing on freedom, practical skills and equality. Danes embraced these ideas enthusiastically, and education has remained very important ever since. In twentieth century Denmark, social-democratic values found their way into the education system. The system, based on inclusiveness, did not provide special opportunities for talented students.

¹² Copenhagen University is the best scoring university on the Shanghai Ranking at place 42, but it only scores place 150 on the Times Higher Education World University Rankings 2013–2014. Here, the Technical University of Denmark scores highest at place 117. Aarhus University also features in the top 150 of both lists.

¹³ In 2012, 84.5 % of research university bachelor graduates who had completed the first cycle programme (bachelor) continued in a second cycle program (master) and 11 % of second cycle graduates eventually enter into a third cycle program (Ph.D.) (European Higher Education Authority 2012, p. 5–6). This can be explained partly by tradition: before the introduction of the bachelor/master structure, the lowest level of research university diploma in Denmark was equivalent to a master diploma.

¹⁴ See chapter Nordic countries.

In the twenty-first century, the concepts of excellence and talent have become more accepted. Several reasons for this development can be identified. First, Denmark has an ageing population and therefore it is important to get young people to enter the labor market at an earlier age. A second development involves Denmark's increasing awareness of its global position. In 2006, the government adopted a strategy to 'make Denmark a leading knowledge society with strong competitiveness and strong cohesion' (IBE 2012). The basic structure of the education system was not changed and its aim was still inclusiveness, but for the first time the government explicitly stated the system should also 'foster talent'.

Third, in 2001, a new government came in, without the social-democrats. The new coalition was more open to discussion about talent and in 2005, the ministry of Education officially called talent development a priority (Folketinget 2008). The ministry also hosted TalentCamp05, where 48 participants gathered for 48 h to generate proposals on how talent could be promoted in the educational system in Denmark. Some ideas were immediately put into practice, such as the Academy for Talented Youth and the ScienceTalenter program.¹⁵ In the aftermath, experts from the Netherlands and Germany were brought to Denmark to discuss 'good practices'. In 2006, the government established a Globalisation Fund. An amount of around 3.4 million euros was set aside for the development of elite programs and modules for excellent students in the master phase of their education (see Hermann et al. 2011, p. 28).¹⁶ At that time, the first excellence programs at university level started.

Two years later, the minister of Education established an official working group on talent. This *talenterarbejdsgruppe* prepared an extensive report (Hermann et al. 2011), published in April 2011. Several recommendations were made for talent development at all levels of education. Publication of the report put the subject high on the political agenda. In the same year, the government made honors education an official goal and proposed to make special honors degrees possible (Regeringen 2011, p. 11).¹⁷ Another proposal had already created talent and elite classes in primary and secondary education (Regeringen 2010) (Box 7.4).¹⁸

¹⁵Following TalentCamp05, 26 projects were supported from the ministry's 'talent pool' of ten million kroner (approximately 1.4 million euros).

¹⁶The amount available was 25 million Danish kroner. Selection rounds resulted in 8 full elite master programs (120 ECTS), 20 elite modules of 30 ECTS and 4 special elite modules of 30–70 ECTS focusing on cooperation between universities and the private sector (Sirius Programma 2012). At the same time, universities also established Elite programs themselves.

¹⁷'Establishment of elite programs designed to give the most talented students the opportunity to replace courses in their ordinary bachelor-master with particularly demanding and challenging modules. Students can follow individual educational elements at the elite level, which are integrated with and/or support ordinary undergraduate and graduate modules, and lead to a special honours degree'. The Netherlands and especially Utrecht were named as an example for Denmark.

¹⁸This was worked out in the proposal 'Professionalism and Freedom' (Regeringen 2010). Elite classes (*eliteidrætsklasser*) are specifically meant for sports talents. Talent classes can be formed on the following principles: 'Basic school [folkeskole] will help to spot, develop and challenge students with special talents. The goal of having good conditions for particularly talented young people is to elevate the overall level in the school. (...) Talent classes should be open to anyone who wants it. It is not exclusionary' (Regeringen 2010, p. 29, own translation).

Box 7.4: Key Players in Excellence

The following institutions are the most important players in the field of talent and excellence in education:

- The ministries of Education and of Higher Education and Science
- Members of the government's *talenterarbejdsgruppe*, a working group on talent that produced a landmark 2011 report. The group was disbanded but former members are still considered experts
- The Nordic Talent Network – Nordic network for improving education for talented students
- Gifted Children – nationwide organization for (parents of) gifted children
- ScienceTalenter – nationwide organization to promote excellence in science among young people
- Academy for Talented Youth – nationwide program for talented 16–19 year-olds

In late 2011, the government changed again. A new center-left minority coalition formed, which put less focus on talent and excellence programs. Still, the agenda of talent development did receive support. According to former head of the *talenterarbejdsgruppe* Stefan Hermann, support continued because ideas were not controversial; 'most of the recommendations were generally speaking good things to do if you want to improve the quality of education'. However, Hermann remains critical about the distribution of talent development programs. 'I think the culture has changed and there is much greater stress on these issues, but it is unequally distributed. It is very easy for a wealthy traditionally very strong university to develop such programs, but for a university college where you do not have a long tradition or consensus it is difficult'.¹⁹

Following the slow change of culture described above, there has also been an increase in provisions for talented or gifted children at primary and secondary school level. There are now special schools for gifted children, called Mentiqa schools.²⁰ Other initiatives include individual competitions such as national Olympiads and the Young Scientists²¹ program.

¹⁹ See full interview Stefan Hermann in Appendix 4.

²⁰ Mentiqa schools are especially aimed at gifted students who do not feel understood, respected or challenged enough in the school environment. There are Mentiqa schools in Odense, northern Jutland and Copenhagen (Atheneskolen). On the website of Gifted Children, an overview of schools offering special programs for talented students throughout Denmark can be found.

²¹ *Unge Forskere*, see ungeforskere.danishsciencefactory.dk.

Two programs are especially focused on linking talented youth to higher education:

- Academy for Talented Youth (*Akademiet for Talentfulde Unge*). ATU is a 2-year co-curricular program for talented youth in Danish upper secondary schools. It intends to challenge students by holding workshops, teaching them and inviting them to visit companies.²²
- *ScienceTalenter* program for talented students age 12–20. They have camps and special educational opportunities for science talents.²³

There are also special talent programs at upper secondary schools themselves (see for example Niels Brock Gymnasium 2014²⁴) and ‘linking’ programs run by the universities (see for example University of Copenhagen 2014²⁵).

7.3 New Developments

Talent development is now firmly established on the agenda of both the Danish government and the HEIs, although focus is stronger at the universities than at the university colleges. Three developments can influence the near future of talent support and excellence programs in Denmark.

First, the PISA report presented unsatisfactory results for the government, especially the fact that relatively few Danish students perform excellent (OECD 2011, p. 26–27).²⁶ Stefan Hermann commented in the media and said that Danish culture had produced this result. Changing it would be a long-term issue, he said: ‘It is about making Danish educational culture far more ambitious – not just for the middle group but also for the most talented’ (Jessen and Gunge 2013, own translation) (Box 7.5).

²² See interview coordinator Nynne Afzelius in Appendix 4.

²³ See interview with coordinator Uffe Sveegaard in Appendix 4.

²⁴ The Niels Brock Gymnasium in Copenhagen for example works together with Copenhagen University and others to offer Master class courses to talented pupils.

²⁵ For example, the University of Copenhagen runs the Junior Researchers project. Pupils at upper secondary level can take part in this 1-year project, where they immerse in a certain subject and make a proposal for a research project. All pupils involved have a 2-day meeting at the university. In four categories, 12 proposals are selected and presented at a final seminar. The two education ministers present the winners in each category, who receive money to carry out their proposal.

²⁶ In PISA 2009, only 4.7 % scored in the top two levels of the reading test, compared to a 7.6 % OECD average (OECD 2011, p. 26). The OECD researchers concluded that ‘put simply, there are too few Danish students demonstrating competence on the more challenging tasks and problems in the international tests’ (OECD 2011, p. 27).

Box 7.5: Local Terminology

‘Talent’ is the preferred term in Denmark, ‘honors’ is rarely used.

Local terms used to refer to (programs for) talented and gifted students include:

- *talentcenter* (talent centre)
- *dygtige elever* (skilled, clever pupils)
- *børn med særlige forudsætninger* (literally: children with special qualifications/requirements)
- *højtbegave* (highly gifted)
- *eliteuddannelse* (elite education)
- *eliteforløb* (elite programs)

Second, there are important legal developments. In January 2014, the government proposed a number of rule changes, giving talents more legal room (Ministry of Higher Education and Science 2014). The bill includes four initiatives:

- the introduction of distinction in diplomas, enabling institutions to award honors degrees;
- recognition of extracurricular (or co-curricular) activities in diplomas;
- removal of the maximum number of ECTS a student can obtain in a diploma, enabling talented students to take more courses; and
- more possibilities for ‘early start’. Secondary and vocational students should have the option to take higher education subjects. They should also receive merit for their efforts, and if they already meet the necessary requirements, could later receive admittance to that particular or related program.²⁷

The law has been passed in June 2014 (Folketinget 2014) and has come into effect in the academic year 2014–2015.

Finally, the formation of a network is important. The Nordic Talent Network creates a platform for more effective lobbying and might form a discussion partner for government.

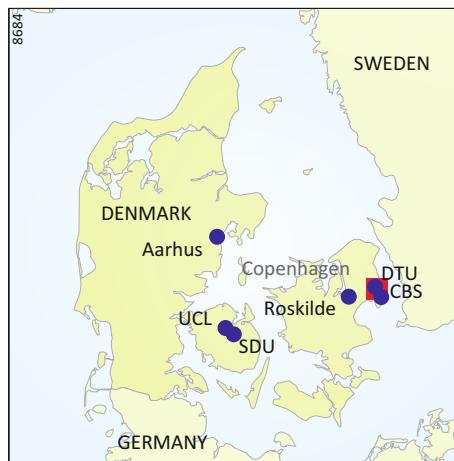
While there is no indication that talent support efforts will be nationally coordinated in the near future, existing programs at the different HEIs generally flourish. Development of more programs could therefore spontaneously initiate from the institutional side.

²⁷ See Ministry of Higher Education and Science 2014 for a press release on the proposal. It is supported by government and some opposition parties.

7.4 Honors Programs per Higher Education Institution

Six HEIs in Denmark offer honors programs. All HEIs with programs are shown on Map 7.1. Most programs are found at research universities and, in particular, at the specialized universities Copenhagen Business School (CBS) and Technical University of Denmark (DTU). DTU is the only HEI to offer an honors program across all master programs. Other programs are specific to one study program or department.

The development of honors programs has been influenced by the policy on 'Elite Master programs'. From 2006 to 2012, Elite Master programs at research university level were established under a nationwide government-supported program. The policy was aimed at institutions, which could turn an existing master program into an Elite Master by offering extra opportunities to students and providing higher-level teaching. Government subsidy ran until 2012 and was discontinued under the new government. Since then, some universities have continued the Elite Masters, while others stopped.²⁸



Map 7.1 Danish higher education institutions with honors programs, 2014

²⁸For example, Aalborg University was the first Danish university to offer elite programs at the master level in 2006 (Andersen n.d.). Students could either take a full master's degree or just a single semester on the elite programme. These Elite Master programs are no longer specially recognized as such. Another example is the University of Copenhagen: they included the Copenhagen Masters of Excellence Program (COME) in its strategic goals for the period 2006–2012. Its goal was to establish 15–20 Elite Master programs. In 2009, eight programs were launched. However, when the subsidy was revoked, the program was discontinued.

Table 7.1 Honors programs at universities and university colleges in Denmark

Higher education institution	Webpage	No. of students, 2013 ^a	Honors education offer
<i>General universities</i>			
University of Copenhagen	www.ku.dk	38,181	No
Aarhus University	www.au.dk	34,107	Yes
University of Southern Denmark (SDU)	www.sdu.dk	20,378	Yes
Aalborg University	www.aau.dk	17,255	No
Roskilde University	www.ruc.dk	7,813	Yes
<i>Specialized universities</i>			
Copenhagen Business School (CBS)	www.cbs.dk	16,499	Yes
Technical University of Denmark (DTU)	www.dtu.dk	5,897	Yes
IT-University of Copenhagen	www.itu.dk	1,874	No
<i>University colleges (professionshøjskole)</i>			
VIA	www.viauc.dk	19,206	No
Metropolitan	www.phmetropol.dk	10,395	No
UCC	www.ucc.dk	9,743	No
Northern Denmark	www.ucn.dk	8,622	No
Zealand	www.ucsj.dk	7,793	No
Lillebaelt (UCL)	www.ucl.dk	6,816	Yes
South Denmark	www.ucsdy.dk	6,124	No
School of Media and Journalism	www.dmjx.dk	2,034	No
Total		212,737	

^aSource: Statistics Denmark 2014

To compile this table, first the websites of all higher education institutions were searched with keywords. Then they were all approached by e-mail. All institutions replied

Some university colleges offer extra opportunities to their students, such as summer schools (in which no regular credits can be obtained),²⁹ special English-language programs³⁰ or new forms of education that integrate different subjects.³¹ Sometimes university colleges specifically target ‘talents’ in marketing efforts for a certain study program. However, most of these programs do not have special admission criteria to identify the talented and motivated students and are therefore not included in Table 7.1.

²⁹For example, there is a summer school for motivated students at Metropolitan University College in Copenhagen. Summer schools in most European countries refer to extra programs in which students participate voluntarily and for which no regular study credits can be scored. Sometimes, special certificates are awarded to successful participants. Often, teaching staff also participates voluntarily.

³⁰At Zealand University College, a special study program in International teacher education was developed. This is branded as a ‘talent line’ in marketing materials and taught 100 % in English, but the admission procedure is the same as for the ordinary teacher education program.

³¹At UCC University College, in 2013 a special science profile “Advanced science teacher education” (ASTE) was started, where students will get an education covering all science subjects (math, biology, physics, chemistry and geography).

One example not fitting our definition of an honors program, but worth mentioning is the new ‘3 + 5 program’ at the University of Copenhagen, which started in September 2014. Participants integrate their MSc and Ph.D. into one five-year scholarship-supported program.³²

In Table 7.1, findings for all universities and university colleges are summarized.

7.4.1 *Aarhus University*

At Aarhus University, talent development is an official priority, although implementation occurs primarily at the Ph.D. level. The university has two Elite Master programs and participates in a number of international joint degree programs, including the Erasmus Mundus program. A pilot honors project is organized for undergraduate students in Physics and Astronomy. The program only started in 2013, and is still under development. The program’s goal involves making sure that ‘challenges exist also for the most talented students and that they have a good chance to further develop their skills, competences, and qualifications’. All students follow all the regular courses and the ‘talentforløb’ is a 20 % supplement, consisting of individual modules in different forms. While regular courses are taught in Danish, this program is in English (Table 7.2).

7.4.2 *University of Southern Denmark*

At the time of writing, the University of Southern Denmark was planning to offer a new talent program in the near future, but was waiting for the government plans to create more room for talent development to be put into law.³³ In the planned

Table 7.2 Aarhus University – Talentforløb Physics and Astronomy

<i>Organizing institution</i>	Aarhus University, Department of Physics and Astronomy
<i>Form</i>	Disciplinary program
<i>Target group</i>	Bachelor students in first year (pilot phase)
<i>Admission</i>	Signing up/application for later phase
<i>Description</i>	Students follow individual extra modules (up to six per year) in English. In later stages, they get associated with a research group
<i>Founded</i>	Summer 2013 (pilot phase)
<i>Participants</i>	Around ten students per module
<i>Website</i>	None yet

³²Personal communication from Anne Mette Schaffalitzky, central PhD coordinator at University of Copenhagen (February 2014).

³³See description of proposals under ‘new developments’ above.

Table 7.3 University of Southern Denmark – research in corporate communication

<i>Organizing institution</i>	International Business Communication Studies, Faculty of Humanities, University of Southern Denmark
<i>Form</i>	Disciplinary program
<i>Target group</i>	Master students
<i>Admission</i>	Application/selection
<i>Description</i>	Six-month module which includes special classes and doing research at a selected company, in order to familiarize the student with research put into practice
<i>Founded</i>	2010
<i>Participants</i>	50 per year
<i>Website</i>	www.sdu.dk/Uddannelse/Kandidat/IVK_elite

program, students will be able to choose some higher level courses from the second year up. There will also be a possibility for students to have an oral defense of their bachelor thesis, and to act as opponents on other students' bachelor theses. In total, this will amount to an extra 30 ECTS (Christensen 2013). Students are supposed to do the extra work on top of their regular program and not take more time for their studies. The exact details are not yet known.³⁴

The university already offers an elite module in International Business Communication. Explicit goals are to provide students work experience at selected companies, and give them insight in research at a university in order to for example continue doing research towards a Ph.D. (Syddansk Universitet 2014, own translation) (Table 7.3).

7.4.3 Roskilde University

Since 2012, Roskilde University offers 'languages profiles' to talented students in bachelor programs in humanities or social sciences. Students entering this program follow co-curricular or extracurricular activities supporting their competences in and use of relevant literature in a third language (apart from Danish and English). At the time of writing, French, Spanish and German language profiles are offered. The program occurs in the first three semesters of the bachelor phase. The profiles are seen as 'an innovative way of combining language and culture learning with the general undergraduate study. And they are a central part of Roskilde University's internationalization strategy' (Table 7.4).

³⁴ Personal communication from Martin Svensson, Head of Department, Institut for Matematik og Datalogi, Syddansk Universitet, March 2014.

Table 7.4 Roskilde University – language profile

<i>Organizing institution</i>	Roskilde University
<i>Form</i>	Disciplinary program, for all bachelor students in humanities or social sciences
<i>Target group</i>	Bachelor students
<i>Admission</i>	Application/motivation letter
<i>Description</i>	Students follow activities supporting their competences in and use of relevant literature in a third language
<i>Founded</i>	2012
<i>Participants</i>	30–40 in total
<i>Website</i>	www.ruc.dk/uddannelse/bachelor/bachelor-med-saerlig-sprogprofil/

7.4.4 Copenhagen Business School

The Copenhagen Business School (CBS or *Handelshøjskolen* in Danish) runs some highly prestigious and selective study programs that are still considered regular education, but it also has a number of programs that can be defined as honors education (See Sirius Programma 2012, p. 8–9³⁵). Selection for some study programs is very tough. The maximum GPA in Denmark is 12. In 2013, cut-off GPA for CBS' most prestigious bachelor program, the BSc in International Business, was 11.9 (CBS 2014a). Master degree programs at CBS are usually also very selective and some are advertised as ‘elite’ programs, such as the Elite Advanced Economics & Finance Master’s degree program (CBS 2014b³⁶).

Groups of selected students (undergraduate and graduate) can also enter international case competitions. The exact form varies, but in general teams compete against international schools to analyze and solve a business case.³⁷ CBS itself organizes the CBS Case Competition, which is well-known internationally. In 2013, it was won by a team from the National University of Singapore.³⁸

Within the already highly selective BSc program in International Business, two honors programs stand out: the GLOBE program and the EngAGE program. The GLOBE program focuses on international education (CBS 2014c), while the EngAGE (Engaged Applied Global Education) program aims to ‘equip selected students with the necessary skills to enter the workforce in a high quality job after 3 years of university education’ (CBS 2014d). This program is developed with partner

³⁵ A delegation from the Dutch Sirius program visited CBS in 2012 and described some programs in its report.

³⁶ This programme is designed for students ‘who have demonstrated particular skills and interest in analytical and quantitative economics and finance’. The programme collaborates with ‘some of the most prominent Danish firms in their respective industries and offers external mentors for the students’. Twenty-five students are admitted each year.

³⁷ Teams receive the business case and are then sequestered from the other students for anywhere from 24 to 60 h on-site - even longer if the research is done ahead of time off-site. They analyze the case and make a plan to resolve the issues, which is then judged by a jury.

³⁸ See www.casecompetition.com for more information.

Table 7.5 Copenhagen Business School – GLOBE program

<i>Organizing institutions</i>	Department of International Business, Copenhagen Business School, the Chinese University of Hong Kong and Kenan-Flagler Business School at the University of North Carolina (USA)
<i>Form</i>	Disciplinary international program
<i>Target group</i>	Second-year bachelor students
<i>Admission</i>	Application/selection
<i>Description</i>	Three participating institutions each select 18 students, who then form one class. In two semesters, the class follows courses at each of the participating schools
<i>Founded</i>	2006
<i>Participants</i>	18 per year
<i>Website</i>	www.cbs.dk/globe

Table 7.6 Copenhagen Business School – EngAGE program

<i>Organizing institution</i>	Department of International Business, Copenhagen Business School
<i>Form</i>	Disciplinary program with business involvement
<i>Target group</i>	Application in second semester bachelor program
<i>Admission</i>	Application/selection
<i>Description</i>	Partner companies of EngAGE work closely with one to five students and take on a mentoring role that will develop the students' business skills over three semesters and prepare them for a final semester-long internship facilitated by the company
<i>Founded</i>	2012
<i>Participants</i>	25 per year
<i>Website</i>	www.cbs.dk/en/study/bachelor/bsc-in-international-business/engage

companies in line with government policy to have Danes start their working career at an earlier age. The goal of EngAGE involves having a maximum of 10 % of students following a master program after completion of the program; instead, they are supposed to start their working career. Alternatively, they can follow a master program later in their career, sponsored by the company they then work for (Sirius Programma 2012, p. 9). In September 2014, the EngAGE program was under review and its continuation was uncertain (Tables 7.5 and 7.6).

7.4.5 *Technical University of Denmark*

7.4.5.1 General

The Danske Tekniske Universitet (DTU) has an extensive offer in honors education, focused on the master phase, to the extent that honors programs exist in every MSc program. Here, 'elite students have access to a particularly challenging course of studies. It is estimated that only 10 % of the MSc students will be qualified for

Honors Programmes' (DTU 2013). Participating students get a personal tutor, make an individual study plan and travel abroad. To gain admission, candidates must have completed their BSc at excellent level. They must then write a personal essay and are assessed in an interview. Students who are admitted, are evaluated at the end of each term. To remain in the program, they must keep on scoring at excellent level and complete their individual plan.

7.4.5.2 Specific Programs

At undergraduate level, the department of systems biology focuses on talent development. It has created the Eduforce program and founded/established Biotech Academy. Through Eduforce, talented university students are hired to teach talented secondary school students. It is not directly linked to the students' academic major study program, but draws on the leadership skills, teaching abilities, and peer mentoring qualities of upper-level students. University students get paid and employment commitments exist on a mouth-to-mouth basis. It is not an honors program according to our definition, but it provides clear advantages for talented students (on their CV) and for the department (having great ambassadors).

Biotech Academy is a program in which talented students develop teaching materials. This highly prestigious program is run completely by students themselves, with the department serving as facilitator. More information is in Box 7.6 (Table 7.7).

Box 7.6: 'It Has to Be Student-Driven'

Interview Lene Krøl Andersen, Head of talent development, DTU Systems Biology

What do you do in Biotech Academy?

‘The idea is that students make teaching materials for high schools within the area that they are interested in. For this, they attract their own funding from companies. It is all student-driven. We at the institute offer support.’

I can imagine the students are really good ambassadors for you.

‘Yes, they are. And they are also good ambassadors for themselves. The companies love them. Because they know they are trained in negotiations, in expressing themselves, selling their ideas. They really go the top. One student developed a sort of virtual laboratory. The government supported it and it is now freely available to all high school students in Denmark.’

(continued)

How does it work if you want to get in?

‘You have to be spotted by the people in Biotech Academy. They talk to professors and ask them who are the best students and then they follow them and ask them for interviews. Individuals are also asked mouth-to-mouth. But it depends on how the chairman wants to do it. It develops all the time, because the new people in the group all have new ideas.’

Is it important that the program is student-driven?

‘We have to have it student-driven. I think talent development is all about making it on your own. In the old days we pointed at the students and they got it all served. I believe that was completely wrong. They have to create their own careers and fight for it. We see that all the people that have been in Biotech Academy, really all, have good positions now. It is really through their engagement and their hard work, that their mindset is developed. Of course it also needs to be prioritized by the institute. Because a student-driven program has to have a back-up at all times. They are ambitious, but they are also very fragile sometimes. That is where we come in, checking and making sure everything is ok.’

Table 7.7 Technical University of Denmark – Biotech Academy

<i>Organizing institution</i>	Independent student organization, with department of systems biology at DTU as facilitator
<i>Form</i>	Disciplinary program
<i>Target group</i>	Talented students in general
<i>Admission</i>	No official procedure, by invitation
<i>Description</i>	Talented students develop web-based interdisciplinary education projects for (high school) children on topical issues in biotechnology research
<i>Founded</i>	2007
<i>Participants</i>	10 to 15 in total at the same time
<i>Website</i>	www.biotechacademy.dk (Danish only)

7.4.6 University College Lillebaelt

After a conference arranged by the Ministry of Education in 2008, Lillebaelt decided to start a talent program, called the Talent Palette. Students sign on to outside assignments as an individual or as a small group. The extent of the projects offered is normally about 30–40 h extra workload per semester. The number of projects available differs from year to year. A cooperation contract between student and the outside provider is signed and students then report their progress in a logbook,

Table 7.8 University College Lillebaelt – Physiotherapy Talent Palette

<i>Organizing institution</i>	University College Lillebælt, Physiotherapy
<i>Form</i>	Disciplinary program with outside involvement
<i>Target group</i>	Bachelor students
<i>Admission</i>	Application/grades/interview
<i>Description</i>	Students can sign on to assignments from physiotherapy clinics, hospitals or from Ph.D. students, take part and receive a diploma addendum if successful
<i>Founded</i>	2008
<i>Participants</i>	Numbers differ per year, around 50 in total so far
<i>Website</i>	None

which is regularly evaluated with their teacher. Successful participants receive a description of the assignment and the outcome attached to their diploma at the end of their study (Table 7.8).³⁹

7.5 Programs Outside Formal Higher Education System

Apart from the programs described above, we came across three programs outside the formal higher education system, but worth mentioning. These are:

Centres of Excellence Sponsored by Danish industry, Centres of Excellence programs address pupils in vocational short-cycle higher education (*erhversakademii*), where pupils can receive a basic vocational qualification after 1.5–2.5 years of studies. Currently, two academically based centers exist. These centers support talented students from across the country in selected vocational education programs. Students receive training at the highest level and with industry-relevant equipment.⁴⁰

KaosPilot Aarhus KaosPilot is an international private design and business school in Aarhus, held in high regard. Admission involves a tough selection process, however KaosPilot is not part of the official education system and does not issue a widely accepted diploma.⁴¹

Future Entrepreneurs of Denmark Future Entrepreneurs of Denmark, open to students of all Danish universities, supports students with a passion for entrepreneurship.

³⁹ Personal communication from Anne Marie Højvang Christiansen, program leader, March 2014.

⁴⁰ Danish Industry (DI) and Industry Foundation are behind the project. They cooperate with four vocational schools: Herningholm Vocational College, Mercantec, Copenhagen Technical Academy and TEC. More info on <http://foreninger.di.dk/CoE/Pages/forside.aspx> (Danish only).

⁴¹ See Sirius Programma 2012 and www.kaospilot.dk

Around 30 students can be admitted each semester, based on a personal essay and grades. Accepted students receive five workshops per semester, dealing with various topics related to entrepreneurship. In groups, they work together to prepare for these workshops. The program is a joint initiative of student organizations at numerous Danish universities and is supported by a number of companies.⁴²

Talent development in Denmark seems to be firmly established. Legal changes that have taken effect late 2014 can facilitate the development of more honors programs. After Denmark, we focus on Norway, where development towards stimulating excellence in higher education is less apparent.

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Chapter 8

Norway: Slow Shift Towards Differentiation

8.1 Education System

Pupils shall not normally be organized according to level of ability, gender or ethnic affiliation. (Education Act 2010)

In Norway, it is forbidden by law to make a permanent differentiation between students based on their abilities. Equity is a central thought in Norwegian education policy. In fact, 'Equity in education is a national goal and the overriding principle that applies to all areas of education' (Norwegian Directorate for Education and Training 2008, p. 3). This also shapes the approach towards excellence in Norway. Little is organized and existing excellence programs typically focus on system, rather than individual student needs (Box 8.1).

Primary and secondary education are founded on the principles of equity and 'adapted education' for all pupils, in a school system based on the National Curriculum (See SIU 2013 and Ministry of Education and Research 2007).¹ Adapted education means that differentiation within the school does take place to some extent.² In practice, schools and teachers 'accommodate both the physical and social

¹The education system is centralized. The Ministry of Education and Research (Kunnskapsdepartementet) is responsible for all levels of education.

²The principle of adapted education was introduced in government policy in 1987 and promoted as 'an ideological guideline for school policy as well as a standard for all teaching with a particular reference to the variety of pupils in need of additional support. On the school level, adapted education included local curriculum programs adapted to the school's culture, neighbourhood and community. On the individual level, the revision stated that adapted education should support the variety of pupils' with appropriate and individual adapted challenges, included the challenges immigrants as cultural and linguistic minorities encounter in school' (Fasting 2010, p. 182). This principle is 'being used to promote the development of an education system which supports all pupils and their individual requirements without the need to classify them' (European Agency for Development in Special Needs Education 2009, p. 13).

Box 8.1: Norway – The Basics

- 5.0 million inhabitants
- Capital: Oslo
- Constitutional monarchy
- 19 provinces
- Conservative/liberal coalition in power

learning conditions as well as the learning content to the pupils' ability, skills and needs – not the other way around' (Fasting 2010, p. 182, see also Opheim 2004).³ Consequently, a basic feature of the Norwegian education system is the arrangement of extra support and special education as much as possible within the common compulsory school called *grunnskole* (Fasting 2010, p. 180), which lasts 10 years and ends with a national exam (IBE 2012, p. 12)⁴ (see Fig. 8.1). After this, most pupils move on to upper secondary school (*videregående skole*). This school provides another 3 years of general training or 4 years of vocational training (see Nuffic 2012, p. 5–6).⁵ Apart from these state schools, alternative education opportunities are rare but they do exist (Ministry of Education and Research 2007, p. 14) (Box 8.2).⁶

³The Differentiation project (1999–2003) was a national project initiated by the Ministry of Education and Research, involving all upper secondary schools in the country. 'The goal for the project was to develop and practice methods for learning that would ensure, as far as was possible, adapted training for each individual student. Each school decided themselves what types of strategies they wanted to try out. More than 1,600 different types of strategies for adapted learning took place during the project period' (Opheim 2004, p. 65). The project was not particularly successful though. Evaluation showed that 'while half of the teachers find the projects in their school interesting and useful, the other half find the differentiation projects unclear regarding criteria and goals' (ibid).

⁴In the national exam, 'pupils are required to take a centrally set written examination in one of three [sic] subjects: Norwegian, Mathematics, Sami or English. Every year it is decided locally which groups of students will take each of the four subjects. Pupils are told only a few days before the examination what will be their subject. The national exams are marked externally' (Eurydice 2014, chapter 5.3).

⁵There are 12 different programs students can follow at *videregående skole*, nine of which are more vocational in nature. Students can choose a specialist subject (*valgfag*). In the second year of upper secondary school, students following a general academic program can choose a direction in either the natural or social sciences in addition to their specialist subject (Nuffic 2012, p. 5). Students who finish their studies successfully are awarded *Vitnemål for Videregående Opplaering* (Secondary School Certificate), which is comparable to the Dutch vwo diploma. In the vocational variant, students do 2 years of schooling followed by 1 or 2 years of practical training, leading to a *Fagbrev* or *Svennebrev* diploma, comparable to a Dutch mbo 3 or 4 diploma (Nuffic 2012, p. 6).

⁶There are some Christian schools and Rudolf Steinerskolen (anthroposophical). In total, there are about 150 private primary and lower secondary schools with almost 14,000 pupils (2.2 % of total), and about 75 private upper secondary schools with approx. 10,000 pupils (6 % of total).

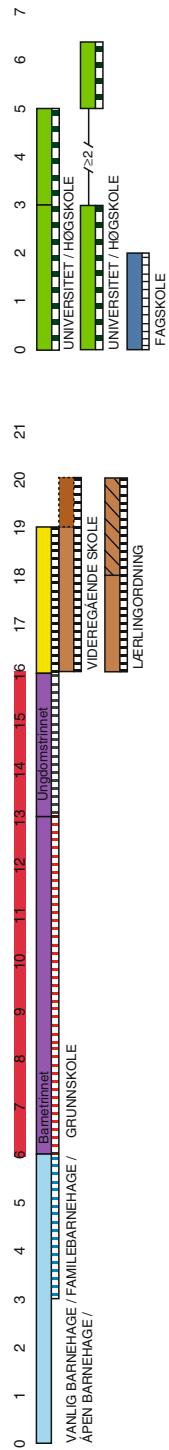


Fig. 8.1 Structure of the Norwegian education system (Eurydice 2014) see Fig. 3.1b for standardized legend

Box 8.2: Education in Norway

- Free at all levels
- Compulsory for 10 years from age 6
- Integrated primary school (*barneskole*) and lower secondary school (*ungdomsskole*) in 10-year *grunnskole*
- Three-year upper secondary education at *videregående skole*
- Higher education admission based on exam grades
- Ministry of Education and Research responsible for all levels of education

Norway has taken part in the PISA assessments of 15-year-olds since the early 2000s. The first results, in 2002, led to a ‘PISA shock’ as Norway scored average results: well below expectations (Haugsbakk 2013).⁷ This led to a massive restructuring of the teacher education system (Hamerness and Klette 2013).⁸ The 2012 results presented another disappointment, the overall score was around average among the OECD countries and performance in mathematics and science dropped (OECD 2013). The new government, dissatisfied with the results, announced action to improve results.

Generally speaking, some provisions exist for talented students in primary and secondary education.⁹ Pupils have the possibility to do their grade ten exam in a certain subject early, or to skip a grade. Talented secondary school students can also study at universities or university colleges in Norway. This is not an official program, but all upper secondary schools are expected to know about it and make appointments with the university or university college in their geographical area.¹⁰ Talented high school students can apply to take part in a regular university course together with regular university students and take the same exams. These university courses are taken in addition to the regular program in their upper secondary school. If they finish the course successfully, they receive a document and the credits can later transfer as university credits. Some universities advertise these possibilities

⁷ Since then, results improved slightly. However, OECD researchers concluded that in spite of spending relatively large amounts of money on education, ‘Norway performs around average in mathematics, above average in reading, but below average in science. Norway’s mean performance in mathematics declined since the previous PISA assessment in 2009’ (OECD 2013, p. 1).

⁸ In response to the 2002 PISA results, ‘educators and policy makers in Norway took a number of steps to improve the quality of teaching, to boost recruitment into teaching, and to increase respect for the profession of teaching’. Generally speaking, teachers for primary and lower secondary education are educated at university colleges, while for upper secondary school a university degree is needed. A 1-year pedagogy course is usually followed after taking a university degree.

⁹ Outside the school system, Mensa (the international association for gifted people), has a Norwegian branch that is also meant for children. There is also an Association of Parents of gifted children and some parents who blog about gifted children and gifted education: some of these parents also organize activities. Goals of these activities are usually focused on the social level.

¹⁰ Personal communication Grethe Sofie Bratlie, Deputy Director General, Ministry of Higher Education, February 2014.

prominently on their website, notably the universities of Oslo and Agder. They are also working together to prepare national guidelines on this subject.¹¹ In 2013/2014, the University of Oslo also offered a special mathematics course at university level for talented high school students (See University of Agder 2013; University of Oslo 2014). Some universities have programs involving university staff teaching at high schools, or high school students can incidentally visit universities.

Admission to Norwegian universities is a complicated process, partly dependent on grades. Students who follow a general training path at the upper secondary school will take exams that lead to general university admission certification, called *generell studiekompetanse*. This diploma is a requirement to be admitted to universities, but it does not guarantee placement (SIU 2013; Ministry of Education and Research 2007).¹² Students who want to enter university must apply at the national coordination centre, called Norwegian Universities and Colleges Admission Service or *Samordna Opptak* in Norwegian. This institute admits students to study programs based on a point scale, with the highest ranking students offered a place until the study program is full. Points are awarded based on average grades from upper secondary school, but additional points can also be awarded for various reasons such as language proficiencies, gender (for a select number of studies) or completed military service. A number of seats are offered without using the point scale. Admission to some programs is highly competitive (Samordna Opptak 2013). In addition, universities or university colleges may set additional requirements for candidates, depending on the particular program (Nuffic 2012, p. 8).

The Norwegian higher education system has developed rapidly in the last decade (Nyborg 2007¹³). The Bologna Process has been combined with extensive reform and development of the whole tertiary education sector (Bakken 2013¹⁴). There are now institutions at three levels: universities, specialized university colleges and ‘general’ university colleges (accredited and non-accredited, see Box 8.3). At the

¹¹Personal communication from Bjørn Monstad, Director of Academic Affairs University of Agder, March 2014. The University of Agder has an official program linking secondary and university education since 2013, but already in 2009 a few gifted students from upper secondary school followed courses at the university.

¹²There are also different ways of entry: Pupils with vocational education and training may qualify for admission to universities and university colleges by taking a 1 year supplementary programme leading to general university admissions certification (SIU 2013). Another route, closely related to the principle of equity, is through the law of 23/5. This means a person above 23 years of age who has 5 years of combined schooling and work experience and has passed exams in Norwegian, mathematics, natural sciences, English and social studies can enter higher education (SIU 2013). Persons over 25 can also enter ‘on the basis of a documented combination of formal, informal and non-formal competence’ (Ministry of Education and Research 2007, p. 16).

¹³Nyborg provides an overview of the history of higher education in Norway.

¹⁴The process started in 2002, with the reformed Universities and Colleges Act, which is also known as the Quality Reform. This act ‘introduced institutional accreditation through the Norwegian Agency for Quality Assurance in Education (NOKUT) and thus opened up an opportunity for any institution to qualify for any institutional category, as long as it successfully passes the accreditation process and demonstrates compliance with the relevant standards’ (Bakken 2013). See also Ministry of Education and Research 2009.

time of writing, there are about 250,000 students in Norwegian higher education, distributed between 75 institutions (Statistics Norway 2013, p. 6; Bakken 2013).

Box 8.3: Higher Education Landscape

- 8 universities, which have the right to establish programmes at all levels
- 9 specialized university colleges, which have the right to establish study programmes at all levels within their majors
- 36 accredited university colleges, which have the right to establish study programmes at bachelor level
- 22 non-accredited and mostly very small colleges of higher education

The four traditional and major universities are located in Oslo, Bergen, Tromsø and Trondheim. Oslo University is by far the oldest and largest university, founded in 1811. It is also the Norwegian university featuring most prominently on world rankings.¹⁵ Since 2003, four specialized institutes and university colleges converted into a full university,¹⁶ which means Norway has eight universities at the moment. Apart from the universities, there is an extensive network of university colleges. Broadly speaking, the nine specialized university colleges work at the national level, while the 36 accredited ‘general’ university colleges mostly focus on their region.¹⁷

8.2 Culture and Policy Towards Excellence

Equal opportunities to complete education are a prerequisite if we are to sustain and further develop the welfare state on the basis of the Norwegian model, with minor social differences between people. (Ministry of Education and Research 2009)

These are the first words of the Education Strategy of the Norwegian government, as approved by parliament in 2009. As said before, equity is a central thought in Norwegian education policy. This can be seen as successful to some extent.

¹⁵ Oslo University is at place no. 69 in the Shanghai ranking and 182 on the Times Higher Education World University Rankings 2013–2014. The other two Norwegian institutes featuring prominently on these lists are Bergen University, found at place 201–225 of the Times List and 201–300 on the Shanghai Ranking, and the Norwegian University of Science and Technology in Trondheim (201–300 Shanghai, 251–275 Times).

¹⁶ According to Bakken (2013), the portfolios of the new universities ‘are still dominated by large professional programmes (teaching, nursing, engineering, etc.) and relatively few of their students follow master degree programmes. Programme diversity has increased in each individual institution, while the institutions in many ways have become more similar. So the development is towards increased diversity within institutions and diminished diversity among institutions.’

¹⁷ These colleges came into existence after the university college reform in 1994, with the goal of giving every county a higher education institution. They are commonly known as *høyskole*.

Norway scores high on equity in the 2012 PISA report (OECD 2013, p. 1).¹⁸ It also scores relatively well among European countries on resilience (*ibid*, p. 4)¹⁹ and on other social factors (Bakken and Elstad 2012²⁰).

But there are also other consequences. The focus on equity and fear of elitism are problematic for gifted students. University of Stavanger researcher Dr. Ella Cosmovici Idsøe sees this as a major problem: ‘Even though many national and international investigations on Norwegian students show that they are not stimulated and challenged enough in school, this is still a taboo topic. (...) There is no definition or normative identification criteria for gifted learners, there is no focus on the needs of these children in schools or teacher training programs and there is a lack of research on this topic’ (see also Udberg-Helle 2013, p. 4) (Box 8.4).²¹

Box 8.4: Local Terminology

The word ‘honors’ is rarely used in Norway. Local terms used to refer to (programs for) talented and gifted students include:

- *fremragende utdanning* (excellent education)
- *evnerike barn* (gifted children)
- *vitebegjærlige barn* (‘inquisitive children’)
- *skoleflinke barn* (academically strong children)
- *høy begaved* (highly gifted)
- *eliteprogramm/eliteutdanning* (elite education)/*elitelinje* (elite line)

Traditionally, student recruitment in Norway primarily emphasized universal access rather than excellence and attracting talented students. But this approach slowly changed after the 2002 Quality Reform (Frølich and Stensaker 2010). In the early 2000s, the government concluded that one of the results of the equity approach was a lack of top teaching and top research.

Focus was first on excellent research and then moved to excellent education. As a first step, the Research Council of Norway initiated a program to identify Centers of Excellence in Research (SFF, *Senter for Fremragende Forskning*). The intention

¹⁸ ‘A relatively small part of the variation of performance can be attributed to differences in students’ socio-economic status’ (OECD 2013, p. 1).

¹⁹ ‘In Norway, 22 % of disadvantaged students are “resilient”, meaning that they beat the socio-economic odds against them and perform much higher than would be predicted by their background’ (*ibid*, p. 4).

²⁰ See Bakken and Elstad 2012 for more information on this subject and a review of the consequences of the 2006 law reform.

²¹ Personal communication, December 2013. See full interview in Appendix 4. Apart from Idsøe, researcher Udberg-Helle also concludes that ‘most Norwegian teachers and politicians have little general knowledge of what it means to be a gifted student. (...) They appear to hold a certain assumption which is based solely on their own experiences, not on factual knowledge’ (Udberg-Helle 2013, p. 4).

was to bring more Norwegian researchers and research groups up to a high international standard. There have now been three rounds in which Centres were identified and awarded extra money.

Following a successful evaluation of this SFU program, the Ministry of Education and Research started a similar program in education. It established the Centres of Excellence in Higher Education (SFU, *Senter for Fremragende Utdanning*) program in 2010.

The SFU program, managed by quality assurance agency NOKUT, is a prestige arrangement for educational activities in higher education. The overarching aim of the SFU program involves contributing ‘to the development of excellent quality in higher education and to highlight the fact that education and research are equally important activities for higher education institutions’ (NOKUT 2013) (Box 8.5).

Box 8.5: Key Players in Excellence

The following institutions are the most important players in the field of talent and excellence in education:

- Ministry of Education and Research
- NOKUT – the Norwegian Agency for Quality Assurance in Education – an independent government agency that contributes towards quality assurance and enhancement in higher education and tertiary vocational education
- Norwegian Association of Higher Education Institutions (*Universitets- og Høgskolerådet*) – the co-operative body for higher education institutions in Norway

The SFU program started in 2010 as a pilot project with one centre. In an evaluation, researchers concluded that Centres of Excellence are ‘welcome (...) in a field receiving comparably few prestigious national measures to ensure a systematic foundation of high quality practices’ (Carlsten and Aamodt 2013, p. 9). In 2013 a new round of applications was held. NOKUT received 24 bids, and finally three new Centres of Excellence were identified. Each centre receives a top funding of NOK three million (about 350,000 euros) annually for a 5-year period, which can be extended for another 5 years upon successful evaluation. One of the programs receiving SFU status is the BioCEED program at Bergen University. This program provides students experience with theoretical knowledge, practical skills, and socially relevant tasks throughout their studies. There is room to experiment with new educational forms. Program Director Vigdis Vandvik thinks the most important implication of the new status rests in the extra leverage. ‘The status gives us better credibility in the university and we collaborate more with the other biology institutes. It’s easier to make things happen and to experiment’.²² SFU Program Director Helen Bråten adds that a main aim involves stimulating the best to develop further and innovate. At the same time dissemination remains important in the program, as

²²Personal communication from Vigdis Vandvik, Director BioCEED Centre of Excellence at University of Bergen, January 2014. See full interview in Appendix 4.

does showcasing best practices and having others adopt and assess outcomes to help prove program success in attaining goals. ‘We want the Centres to disseminate both internally, within their organization, but also regionally, nationally and internationally, hence enhancing quality in education across the sector. The new Centres are progressing quite fast, I think, so that is promising’.²³

It should be noted that the Centre of Excellence programs are aimed at the institute level and not at the level of individuals. For example, there are no additional admission requirements for students that are taught in Centres of Excellence in Higher Education, thus upholding the equity principle. According to Education ministry Deputy Director General Grethe Sofie Bratlie, until now ‘research is the way of taking care of talented students’. The universities try to guide them into research and to pick them up as Ph.D. students. The government has financed quite a few Ph.D. programs for talents.²⁴

8.3 New Developments

Three recent developments might lead to a change in the approach towards excellence.

Firstly, a new government took office in October 2013. The centre-left government has been replaced with a centre-right government, led by Erna Solberg of the Høyre party. This party is not opposed to using the word ‘elite’, as in fact it has a tradition of an ‘elite program’ for its most-promising young members (Unge Høyre 2013). Within 2 weeks of taking office, the new Education minister Torbjørn Røe Isaksen commented about gifted children in an interview for state television news NRK, ‘We must learn that gifted children can have big challenges and may need help (...) We are very busy with this problem and will handle it. The first thing we shall start with is to make the specific problem known’ (Engen and Osterud 2013, own translation²⁵).

In January 2014, the new government announced its plans for higher education (Ministry of Education and Research 2014). Focus is placed on quality. Financing and structure will be reviewed and more focus will be placed on teacher education. A long-term plan for higher education and research is announced for late 2014. This can be seen as a significant shift.²⁶

²³Personal communication from Helen Bråten, Project Manager SFU at NOKUT (Norwegian Accreditation Agency), February 2014.

²⁴Personal communication from Grethe Sofie Bratlie, Deputy Director General, Ministry of Education, February 2014.

²⁵A discussion about the subject of excellence in education also broke out in Norwegian media. In an opinion article on the NRK website, one of the directors of the group *Lykkelige barn* (happy children) was critical about the ‘fear of elitism’: ‘Today, Norway and Sweden are the only two countries in Europe where the silence about giftedness has been almost total over many decades. One can of course be tempted to speculate about the reasons. Have we stopped talking about unequal learning conditions out of fear that we say something about the ‘worth’ of a human being at the same time? Has the fear of elitism lead to us putting a lock on this discussion?’.

²⁶Personal communication from Grethe Sofie Bratlie, Deputy Director General, Ministry of Education, February 2014.

Second, a sense of disappointment exists with the overall 2012 PISA results. The minister commented that ‘we must have higher ambitions than to be in the middle among the OECD countries (...) We must be better at helping those who perform weakly, and at the same time we must lift up more students to the highest levels’ (Kunnskapsdepartementet 2013, own translation). The Oslo City Council also recognized the problem of few high-performing Norwegian students and adopted a talent strategy in 2013.²⁷

Third, the further development of the SFU program might lead to more innovation in higher education in general and experimenting with new forms of education for talented students in particular.

Along with these developments, the newly-established Nordic Talent Network (2013) might form a platform for more effective lobbying towards the government.

8.4 Honors Programs per Higher Education Institution

We found no honors programs at Norwegian higher education institutions fitting our definition. However, there are some other provisions for talented students worth mentioning.

Students in Norway can apply for one-time allowances or scholarships, for example, to study abroad. Private institutes providing scholarships often do have a tough selection process.²⁸ Some Norwegian HEIs participate in international programs, such as Erasmus Mundus and the Nordic Master program. The Norwegian School of Economics (NHH) takes part in a number of international programs (Double degree and CEMS-MIM), which were described in part I.

In addition, for some institutes admission is highly competitive, especially art schools and universities. For example, at Bergen Academy of Art and Design ‘we could have several hundred applicants to forty-five seats in a program. As an average we have five to six times the number of applicants compared with the number of openings’.²⁹ The same goes for Oslo’s School of Architecture and Design. ‘Admission to AHO is highly exclusive, e.g. for Master of Architecture there are 2,000 applicants for less than 100 seats. You obviously need to be both talented and motivated to get in, but it is still a “regular study program”’.³⁰ At the Norwegian Academy of Music, ‘almost all our students are talented and the whole institution is oriented towards educating talented students. We have very strict admission proce-

²⁷ Information on the Oslo City Council talent strategy can be found on www.ivarjohansen.no/dm/documents/talenter.pdf and www.bystyret.oslo.kommune.no/getfile.php/bystyret%20%28BYSTYRET%29/Internett%20%28BYSTYRET%29/Dokumenter/Bystyrets%20forhandlinger/2008-2013/20131004_April.pdf

²⁸ For example the Sons of Norway foundation that has some scholarships available for Norwegians wanting to study in North America.

²⁹ Personal communication from Ingjald Selland, Director of Academic Affairs Bergen Academy of Art and Design (KHiB), February 2014.

³⁰ Personal communication from Erling Rognes Solbu, International coordinator Academic Services at Oslo School of Architecture and Design (AHO), February 2014.

Table 8.1 Universities and specialized university colleges in Norway

Higher education institution	Webpage	No. of students ^a	Honors education offer
<i>Universities</i>			
University of Oslo (UiO)	UiO.no	27,100	No
Norwegian University of Science and Technology (NTNU)	Ntnu.edu	22,043	No
University of Bergen (UiB)	Uib.no	14,257	No
University of Agder (UiA)	Uia.no	9,824	No
University of Stavanger (UiS)	Uis.no	9,530	No
Arctic University of Norway (UiT)	Uit.no	9,436	No
University of Nordland (UiN)	Uin.no	6,009	No
Norwegian University of Life Sciences (UMB)	Nmbu.no	4,344	No
<i>Specialized university colleges</i>			
BI – Norwegian Business School	Bi.no	20,000**	No
NHH – Norwegian School of Economics	Nhh.no	3,468	No
Specialized University in Logistics (HiMolde)	Himolde.no	2,242	No
Norwegian School of Sport Sciences (NIH)	Nih.no	1,383	No
MF – Norwegian School of Theology	Mf.no	950**	No
Norwegian Academy of Music (NMH)	Nmh.no	660	No
Oslo School of Architecture and Design (AHO)	Aho.no	618	No
Oslo National Academy of the Arts	Khio.no	502	No
School of Mission and Theology	Mhs.no	350**	No
Bergen Academy of Art and Design	Khib.no	330	No
Total		133,046	

^aSource: Statistics Norway 2014 (numbers for 2012) for all HEIs except the ones marked with**. These are private institutions. Numbers are taken from the institute's own web pages (February 2014). To compile this table, first the websites of all universities and specialized university colleges were searched with keywords to find honors programs. Then they were all approached by e-mail and asked if they had any special provisions for talented students, matching our working definition. All institutions replied

dures and up to forty-fifty applicants for each seat for some of our programs'.³¹ Finally, the Oslo National Academy of the Arts offers 'a small number of highly competitive programs, each in specialized fields of the arts. We receive many more qualified applicants than our yearly admission quotas permit us to accept. We put all applicants through rigorous tests and we interview a large portion of the applicants each year. The result is a limited number of highly motivated and gifted students who are offered programs that are all very challenging and demanding'.³²

Table 8.1 presents an overview of universities and specialized university colleges in Norway, ordered by size (measured in student numbers).

³¹ Personal communication from Kjetil Solvik, chief of studies at Norwegian Academy of Music (March 2014). The Norwegian Academy of Music is also in the SFU program with its Centre of Excellence in Music Performance Education.

³² Personal communication from Torben Lai, Head of Academic Affairs, Oslo National Academy of the Arts (March 2014).

No honors programs have been developed in Norway yet, but the SFU program and the new government's intentions are incentives to develop further in this respect.

In the next chapter we will see if development is also occurring in neighboring Sweden.

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³³**Note:** Literature used to prepare this book is included on this list. Some of the entries are in local languages and have not been read completely by the researchers. Instead, they have been searched with keywords to retrieve relevant information.

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Chapter 9

Sweden: Incentive to Move Towards More Differentiation

9.1 Education System

Sweden's education minister, Jan Björklund, said the PISA results were "the final nail in the coffin for the old school reform" and speculated that the central government could take over running schools from Sweden's municipalities. (Adams 2013)

Trust in the Swedish education system was dealt a harsh blow late 2013, when the latest PISA report comparing 15-year-olds' achievements in education in different countries was published. Sweden scored the lowest results among the 11 countries in this report and below the OECD average in all subject areas. Further heightening anxieties, the trend reflected downward. Since the first PISA assessment in 2000, Sweden's performance has declined the most (Skolverket 2013b, p. 8, own translation). In addition, 'an increasing number of students in Sweden perceive school as a waste of time and feel little affinity with their school' (*ibid*, p. 9) (Box 9.1).

Sweden scored the lowest PISA results of all countries in this study

These realities led to a big discussion in Sweden, partly about who is to blame and partly about necessary changes. The opposition leader at the time (and current prime minister) Stefan Löfven even called the results a 'national crisis' (Kärrmann 2013). In a publication in *The Economist* (2013), the discussion was summarized: '[Education Minister] Björklund blames the poor results on the period when the Social Democrats were in charge. Others say poorly paid teachers are at fault. The profession, once highly regarded, has seen salaries fall far behind other jobs requiring a higher-education degree. The student demand for teaching programmes is so low that almost anyone applying will be accepted' (see also IBE 2012; Regeringskansliet

Box 9.1: Sweden – The Basics

- 9.6 million inhabitants
- Capital: Stockholm
- Constitutional monarchy
- 21 counties
- Social-democratic/green minority coalition in power

2010).¹ The government immediately asked OECD researchers for an in-depth analysis of the results, which was provided in a report in February 2014 (OECD 2014). It documented that relatively many students are in schools where ‘teachers’ low expectations of students hinder learning’, Sweden has ‘the highest proportion of students who arrive late for school among OECD countries’ and that ‘students in Sweden report lower levels of perseverance to learn than students in most other countries’ (ibid, p. 18–24). All these findings are not very helpful for an excellence strategy (Box 9.2).

Box 9.2: Education in Sweden

- Free at all levels
- Compulsory from age 7–16
- Integrated primary and lower secondary school in 9-year *grundskola*
- Three-year upper secondary education at *gymnasieskola*
- Municipalities run state system of primary and secondary education
- Independent private *friskolor* exist alongside state system
- Higher education admission based on grades, national test and other criteria
- Ministry of Education and Research ultimately responsible for all levels of education

Discussion started about changes in the educational system, which is firmly rooted in the Nordic tradition of egalitarianism, but has undergone a big reform starting in the early 1990s. Since then, private schools (*friskolor*) have gained a prominent but also much-criticized position in the system (see Box 9.3; more info

¹ In an international review of teacher education, a number of weaknesses in Sweden have been pointed out. These included ‘an underdeveloped culture of academic research and lower than average levels of internationalization’ (IBE 2012, p. 38). But the major problem, according to these researchers, is the relatively high number of teachers without a teaching degree. ‘In 2009/2010 approximately 77 % of upper secondary teachers held teaching degrees. In upper secondary vocational education and training, only 61 % held a teaching degree. (...) An applicant without full qualifications may be employed on a temporary basis but this may be extended year after year’ (IBE 2012, p. 38–39). Teacher education in Sweden has recently gone through major reforms (Regeringskansliet 2010).

Box 9.3: Free Schools and Education for Profit

Apart from the government-supported ‘state’ schools, independent schools generally known as free schools or *friskolor* are also available since the early 1990s. A law reform allowed privately-run institutions to apply for state funding for each student, provided they also stick to the national curriculum and are also free and open to all. If parents decide to opt for another school than the nearest *grundskola*, they receive a voucher representing an amount of money their children can take with them to another school.

Since the introduction of this system, there have been clear tendencies towards a marketization of education funding. Some of the *friskolor* are run by private companies, which is controversial and has led to intense debate. Although actual effects are unclear, critics say the principle of profit-seeking by definition puts quality at risk. In 2013 a number of for-profit companies running free schools have been in financial difficulties and some in fact went bankrupt. The state had to step in to find a solution for the students. Another discussion ensued when a TV program revealed that ‘privately-run schools were prepared to bend selection rules [for *gymnasieskola*] to admit bright pupils’. This critique, combined with the worrying PISA results, has led the government to indicate in late 2013 that ‘private-equity funds will no longer be welcome owners’. At the time of writing, no measures to change the system had been taken yet.

can also be found in Bunar 2010; Wiborg 2010; Adams 2013). In the same reform, municipalities gained a central position in primary and lower secondary education. They employ teachers, organize school activities, and are responsible for allocating resources to schools (See Helgøy and Homme 2006, p. 148²).

Primary and lower secondary education are integrated into one school: *grundskola*, with nine grades.³ All students follow the same national curriculum, with limited possibilities for schools to vary, and also limited options for children to choose subjects. The *grundskola* period is usually not entirely spent in one school. In grade six or seven, pupils often change to a bigger school with different teachers per subject. At the end of *grundskola*, almost all pupils⁴ continue in upper secondary education called *gymnasieskola* (see Fig. 9.1). Pupils’ academic performance, measured by grades⁵ determine if they can continue in a study program geared

² State primary and lower secondary schools are run by municipalities. The National Agency for Education (Skolverket) oversees this. The Ministry of Education and Research (Utbildningsdepartementet) is ultimately responsible for all levels of education.

³ Before *grundskola*, most children from one to five will attend *förskola* (preschool). This is provided free of charge. There is a year of *förskolaklass* (preschool class) from the age of six. During the *grundskola* period, most children will attend a *fritidshem* (leisure time centre) before and after school.

⁴ It is not compulsory to attend upper secondary education, but nearly everyone does. There are 18 national programmes in *gymnasieskola*. Six are higher education preparatory programmes and the other 12 are vocational programmes (Eurydice 2014, chapter 6).

⁵ Students receive grades from grade 6. More info in Eurydice 2014, chapter 5.3.

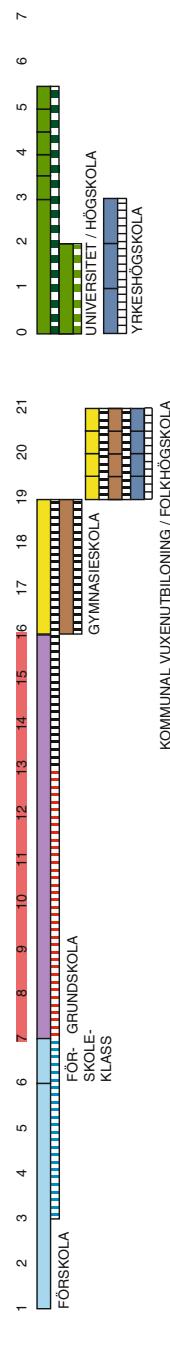


Fig. 9.1 Structure of the Swedish education system (Eurydice 2014) see Fig. 3.1b for standardized legend

towards higher education preparation, or towards vocational education. Students must apply for places in upper secondary schools. In many municipalities all students will get their first choice, if they just have the passing level. Other schools have a certain amount of places available and the pupils with highest grades get in (See Orange 2011 for further explanation of this system). In upper secondary schools, students can follow different programs, but a wide range of compulsory subjects exists (see Skolverket 2013a and Eurydice 2014, chapter 6).⁶ There is no central examination. Students receive a school leaving certificate (*Slutbetyg från Gymnasieskolan*), stating the subjects they took and the grades they received. However, national tests have been introduced in the school year 2013/14 in science in year 9 in the compulsory school, and also in social studies in years 6 and 9 (Ministry of Education and Research 2013, p. 15).

Admission to higher education depends on upper secondary grades and a national admission test⁷ that students can take voluntarily. A *numerus clausus* principle applies to all higher education study programs, meaning that there is a great deal of competition for seats in the most popular programs (Nuffic 2012, p. 7). One third of the seats at HEIs are usually distributed on the basis of grades and one third on results from the aptitude test. For the remaining third, universities and university colleges have the right to decide on criteria for selection, for example, prior learning and experience, proficiency in specific areas and interviews (Eurydice 2014, chapter 7.2.1). More and more Swedes apply for places in higher education and this also means more applications need to be turned down: in the 2012 autumn semester 59,800 students were admitted from 126,000 new applicants (Universitetskanslersämbetet 2013, p. 26).⁸

Higher education and research in Sweden mainly takes place at 14 state universities (*universitet*) and 21 state university colleges (*högskolor*),⁹ which are autonomous agencies under the auspices of the government (Ministry of Education and Research 2013, p. 8). The oldest universities in Sweden are Uppsala University, founded in 1477, and Lund University, founded in 1666.¹⁰ The highest scoring institutes in international rankings are the universities of Uppsala and Lund, Stockholm University, and the Karolinska Institute, a medical university in the Stockholm area. In research, the universities have different excellence centres and/or excellence strategies. This does not apply to the education side, where no differentiation is made.

⁶There are 18 national programs in total. Social sciences and natural sciences are the most common. For some programs (mostly arts subjects), there can be an entrance exam. All upper secondary school programmes include the same nine compulsory courses in Swedish /Swedish as a second language, English, history, civics, religion, mathematics, science studies, physical education and health and artistic subjects.

⁷Swedish Scholastic Aptitude Test, *Högskoleprovet* in Swedish. The Swedish Council for Higher Education (*Universitets- och högskolerådet*) has the overall responsibility for this test. It is usually organized twice a year. The result is valid for 5 years (Eurydice 2014, chapter 7.2.1).

⁸The number of applicants with no prior experience of higher education in 2012 was the highest figure ever recorded and an increase of 8 % compared to the previous year. The capacity of the HEIs was not adjusted accordingly: the number of admissions increased around 1 %.

⁹There are also 16 private higher education institutions with the right to award degrees. They are mainly very specialized and small (Eurydice 2014, chapter 7).

¹⁰All other universities have at some point after 1950 been upgraded from university college level.

9.2 Culture and Policy Towards Excellence

No-one must believe they are special. It is improper to feel pride in oneself. These words catch the basic ethos by which individual excellence has commonly been viewed in Sweden. (Mattsson and Bengmark 2011, p. 81)

Sweden has a long tradition of focusing on equivalence and equality. The principles of the *Jantelagen*¹¹ are upheld. Striving for equity and equal opportunities is also official government policy, ‘Quality, equivalence and high accessibility are the foundations of the education system’ (Ministry of Education and Research 2013, p. 5).¹²

While equivalence was and is seen as a positive factor by most Swedes (Englund 2005),¹³ it is heavily criticized by scholars of gifted education, such as Jönköping university professor Roland Persson. He states about the Swedish school ‘its *raison d'être* is to bring all students to a minimum level of knowledge and competence; namely the level that is considered to enable all members of society to lead well-functioning lives (...) The responsibility of the school system ends once students have reached this minimum level. Every student reaching further than the set minimum level is more or less left to fend for him- or herself by systemic default’ (Persson 2010, p. 539).¹⁴

Researchers Mönks and Pflüger (2005, p. 137) concluded that ‘high achieving students have never been the subjects of special educational provisions’ and researchers Stålnacke and Smedler found ‘little heed is given to the high-ability group, which remains largely unidentified’ (Stålnacke and Smedler 2011, p. 901). In a 2009 European survey, Sweden ranked as the only country where ‘they reject in principle the idea of identifying pupils as “gifted”’ (European Agency for Development in Special Needs Education 2009).¹⁵

Advocacy for gifted education shows increase in recent years (see Mattsson and Bengmark 2011). In the new general school law in force since 2011, an implicit reference to talented students is made: ‘Students who easily reach the minimum knowledge requirements which shall be reached should be given guidance and

¹¹ Law of Jante. See introductory text for Part III: The Nordic countries.

¹² In addition, the ministry states: ‘The fact that all education should be equivalent does not mean that it should be the same everywhere. In the preschool, compulsory and upper secondary schools, each child's and pupil's circumstances, needs and level of knowledge should be taken into account’.

¹³ Englund (2005), in a discourse analysis of the use of the concept, concluded that the focus on equivalence had undergone ‘a considerable shift in the last 20 years. The main characteristic of this displacement is that the concept has maintained its recognition as a symbol of positive values, whereas many of its earlier associations with equity and equality no longer apply’ (p. 42).

¹⁴ In addition, Persson found out in a 2007 survey among Swedish Mensa members that they felt unhappy even in universities: 65 % maintained that even at this level of education their experience was mainly negative (Persson 2010, p. 553).

¹⁵ The Swedish point of view was explained as follows: ‘This categorization procedure, they argue, could become an obstacle for the development of inclusive education. From an inclusive perspective it is schools that have to modify their practice and offer adequate support capable of meeting pupils diversity without any need to categorise them in order to include them’ (p. 14).

stimulation to come further in their knowledge development' (Skollag 2010, p. 800, chapter 3.3, translation from Mattsson 2013, p. 14). In the 2011 curriculum for the compulsory school, it explicitly states teachers should stimulate pupils to use all their abilities (Skolverket 2011, p. 16).¹⁶ Interestingly, the word talent, which is widely used in Denmark, is not used in Sweden at all. Instead, if any references are made, they mostly have the word 'elite' in them (see Box 9.4).

Box 9.4: Local Terminology

The word 'honors' is not used in Sweden. Local terms used to refer to (programs for) talented and gifted students include:

- *spetsutbildningar* (cutting edge programs or advanced placement programs, literally: peak programs)
- *begåvade barn* (gifted children)/*särbegåvade barn* (highly gifted children)
- *elitutbildningar* (elite programs)
- *elever med särskilda förmågor* (students with specific abilities)
- *talangfulla elever* (students with talent)

Terminology about these programs and students is a very political issue in Sweden. Programs may therefore also be marketed as 'for those who like to be challenged' or in similar terms.

In 2013, mathematician Linda Mattsson wrote a thesis titled 'Tracking mathematical giftedness in an egalitarian context', which contains a list of six elements on which development is necessary to provide successful education to mathematically gifted students. It is worth replicating these here, as they seem applicable not only to mathematics, but also to the broader Swedish education context (Mattsson 2013, p. 3–5):¹⁷

- gifted students need to get legal recognition in the national policies;
- the gifted mathematics students need to be identified;
- introduction of gifted education during the Swedish teacher education;
- a need to strengthen the connection between research and implementation of gifted education;
- a need for coordinating measures for development of gifted students; and
- attend to the social and emotional needs of gifted students.

This list may seem basic at first sight, but it provides a snapshot into the current state of affairs in Sweden.

¹⁶ 'Teachers should take into account each individual's needs, circumstances, experiences and thinking, (...) organise and carry out the work so that pupils develop in accordance with their own capacity, and at the same time are stimulated into using and developing all their ability'. In the curriculum for upper secondary school (Skolverket 2013c), a similar statement is made.

¹⁷ See for more information the interview with Linda Mattsson in Appendix 4.

Still, in recent years more focus has been placed on talented children, usually without naming them as such. This trend follows the developments around the free schools, which has led to more choice for parents and more public debate about the education system.

For talented children, there are a few possibilities for early start and acceleration.¹⁸ In 2008, a law was passed that allowed a number of *gymnasieskola* to experiment with a special program for high-achieving students in a number of subjects. Students taking part can follow part of their education at a university or university college. These are officially called *spetsutbildningar* (SPETS, literally: peak programs), but are also referred to as *elitutbildningar* (elite programs) in the media or in everyday talk. This pilot project runs until 2016 (Skolverket 2013d). The program strives to ‘provide students from across the country the opportunity of depth and width in the discipline or in the subject area in which SPETS is directed. The subject areas of SPETS are mathematics, science, the social sciences and the humanities’.¹⁹

Since 2011, similar programs are also possible in *grundskolan*. The aim is to provide pupils with ‘the opportunity to develop their knowledge and skills as far as possible, for example, by starting to study upper secondary school courses while in the compulsory school’ (Ministry of Education and Research 2013, p. 15).²⁰

Evaluations have been done on a few aspects of some of these programs. But according to Mattsson (2013, p. 5–6), ‘nowhere in these evaluations are the “most important conceptual foundations of a gifted program” discussed; that is, “the theory of giftedness that undergirds the program”’.²¹

In addition to the *spetsutbildningar* policy, top programs exist in arts, for example ballet (Box 9.5).²²

The system of *friskolor*, described in Box 9.3, has led to a situation where a number of these schools refuse to take weaker pupils (Sandelin 2013) and some become *de facto* schools for extra talented youngsters because they use very high entry grades

¹⁸ First, they can decide to enroll their child early, at age 6 instead of 7. Then, by law there is also a provision for acceleration: ‘compulsory schooling may finish earlier if the child demonstrates possession of a level of knowledge corresponding to a completed compulsory schooling’. See Eurydice 2014, chapter 5.1. There are also other initiatives. Some of these have existed for a long time. For example, according to Mattsson, ‘Sweden has had special classes for gifted students in mathematics at upper secondary school for a quarter of a century. Yet these activities have, from an educational perspective, gone almost unnoticed’ (2013, p. 5).

¹⁹ Personal communication Ylva Eriksson, Director of Education Unit for Upper Secondary School at Swedish National Agency for Education. In English, the *spetsutbildningar* are referred to as either advanced placement classes or cutting edge programs. See also Skolverket 2013d. There are 20 *gymnasium* all over Sweden that had such advanced placement classes. One example is the program at Viktor Rydbergs Gymnasium in Djursholm, where the program is focused on English. About 75 % of classes are taught in English, and during their third year the students take a foundation course in English at nearby Stockholm University (www.vrg.se)

²⁰ The programs are accredited and financed by the National Agency for Education (Skolverket). Eight programs were approved in 2011, and ten in 2012. These excellence programs can start from grade 7.

²¹ Mattsson refers to Moon and Rosselli 2000, p. 500.

²² The international organization Mensa also has a Swedish branch, focusing on getting more attention for gifted children and organizing events in their Gifted Children Program. The Royal Swedish Academy of Sciences awards prizes to promising young scientists regardless of their age.

Box 9.5: Key Players in Excellence

No national coordination of efforts in the field of talent and excellence in education exists in Sweden. The most important players are:

- Ministry of Education and Research
- The Swedish National Agency for Education (Skolverket) – central administrative authority for the public school system
- Swedish Council for Higher Education (Universitets- och högskolerådet)
- Swedish Higher Education Authority (Universitetskanslersämbetet)
- Association of Higher Education Institutions
- Individual researchers on talent and giftedness, most notably Roland Persson

(see Orange 2011).²³ However, the schools do not use terms like ‘gifted’ or ‘talent’. Some universities have programs in which they cooperate with secondary schools, but these programs do not explicitly target talents. Overall, the Swedish tendency not to use words like ‘talent’ or ‘giftedness’ makes it hard to identify programs.

A specific policy targeting talented students in higher education was not found. Again, this might be due to the difficulties in use of terminology. However, there is explicit policy *not* to differentiate. Sweden was the only country in a survey of 24 European countries that chose ‘not to categorize pupils according to different abilities or disabilities’ (European Agency for Development in Special Needs Education 2009, p. 22).²⁴ According to Roland Persson, this represents a deliberate political choice: ‘It might be good to know that the terms giftedness or talent are almost never used. In connection with the [spetsutbildningar program], pupils are not even referred to as high achieving. They are referred to as “Pupils who like to be challenged” – this is a very political and intentional choice of word. (...) The politicians of the knowledge economy desperately want high ability in terms of innovation potential, but they cannot term it “giftedness”. The only reason is that “giftedness” is a word signifying the segregation of ability and potential. No politician would gain any public confidence if they promoted policies for special groups and discussed them as in any way better or different than other groups no matter how factually correct the issue at hand. So fact stands against strategy. This is presumably the case everywhere in Europe and elsewhere, but it is particularly sensitive in egalitarian cultures such as the Scandinavian’.²⁵

²³ Orange 2011 explains how the system works by an example: ‘In Sweden, schools are only allowed to say how many places they have free. Each student gets their grades at the end of secondary school and lists the sixth forms they want to go to. The Malmö municipality fills the places in each school, both free and municipal, in order of grade. So if ProCivitas has 300 places, but 1,000 students want to attend it, then the municipality gives the places to the 300 students with the best marks. If on the other hand Kunskapsgymnasiet has 400 places and only 360 students want to go, the municipality will give them all places, even if they have rock-bottom marks.’

²⁴ ‘Neither the steering documents nor the official statistics on pre-school activities, leisure-time centres, schools and adult education categorize children’.

²⁵ Personal communication from Roland Persson, January 2014.

9.3 New Developments

Three interconnected developments may be an incentive to change the Swedish approach towards excellence in education in the near future.

First, in the last few years, more discussion about the needs of highly gifted children has appeared in Swedish media. Researchers, especially in mathematics education and psychology, have published about the merits of gifted education and participated in discussions.²⁶

Second, discussion intensified after the bad PISA results were announced in late 2013 (see Sect. 9.1 above). They came as a shock to many observers in- and outside politics. Since then, debate has focused on the effectiveness of the current education system. In late March 2014, the government set up an ‘education scientific council’, consisting of 12 professors from different fields, to act as consultants to the government in school matters (Regeringskansliet 2014). In September 2014, just before the national parliamentary elections, the government announced a new policy, requiring the development of special teaching materials for talented pupils in primary and secondary education (Regeringen 2014). However, the ruling coalition lost its majority in the elections and at the time of writing, it is unclear what this will mean for the talent policy.

Finally, researchers interested in talent support and excellence in education in the Nordic countries started the Nordic Talent Network in 2013. Swedish researchers take part in this initiative. Dr. Linda Mattsson at the Blekinge Institute of Technology establishes a national mathematics network to support identification of and development of mathematical giftedness, funded by the influential National Center for Mathematics Education.²⁷ Besides, she also tries to set up a national e-mail list in order to reach out to all persons interested in the field of gifted education in Sweden (across all education levels). She intends to create a national network to share experiences and knowledge. In the light of all developments above, these initiatives might form a platform for lobbying and a discussion partner for politicians.

9.4 Honors Programs per Higher Education Institution

No honors programs at Swedish higher education institutions have been found. Some Swedish universities do take part in the Nordic Master Programme, Erasmus Mundus programs or other networks of international cooperation for talented students. Table 9.1

²⁶Apart from Roland Persson who has been publishing about the highly gifted for many years, there are other researchers as well. For example, mathematician Linda Mattsson is setting up a national mathematics network to support identification of and development of mathematical giftedness and also tries to form a network of all persons interested in the field of gifted education. She and her colleague Eva Pettersson both published a Ph.D. about giftedness. Elisabet Mellroth is trying to set up projects and participates in the Nordic Talent Network and psychologist Anita Kullander has featured prominently in different media, stressing the needs of gifted children.

²⁷Personal communication from Linda Mattsson, April 2014.

Table 9.1 Universities and university colleges in Sweden

Higher education institution	Webpage	No. of students ^a	Honors education offer
<i>Universities</i>			
Stockholm University	Su.se	36,339	No
Lund University	Lu.se	31,540	No
University of Gothenburg	Gu.se	31,342	No
Uppsala University	Uu.se	27,039	No
Umeå University	Umu.se	22,026	No
Linnaeus University	Lnu.se	19,982	No
Linköping University	Liu.se	19,877	No
KTH Royal Institute of Technology	Kth.se	13,365	No
Luleå University of Technology	Ltu.se	12,750	No
Mid Sweden University	Miun.se	10,967	No
Örebro University	Oru.se	10,728	No
Karlstad University	Kau.se	10,597	No
Karolinska Institutet	Ki.se	7,654	No
Swedish University of Agricultural Sciences	Slu.se	4,632	No
<i>University colleges</i>			
Malmö University ^b	Mah.se	16,068	No
Jönköping University ^b	Hj.se	9,870	No
Mälardalen University ^b	Mdh.se	9,861	No
University of Gävle ^b	Hig.se	9,275	No
Chalmers University of Technology	Chalmers.se	9,231	No
Dalarna University	Du.se	9,100	No
Kristianstad University	Hkr.se	8,004	No
Södertörn University ^b	Sh.se	7,764	No
University of Borås ^b	Hb.se	7,535	No
University of Skövde ^b	His.se	7,169	No
University West ^b	Hv.se	7,118	No
Halmstad University ^b	Hh.se	6,296	No
Blekinge Institute of Technology ^b	Bth.se	4,858	No
Stockholm School of Economics	Hhs.se	1,813	No
Ersta Sköndal University College	Esh.se	1,400 ^a	No
The Swedish School of Sport and Health Sciences ^b	Gih.se	948	No
Konstfack	Konstfack.se	769	No
Total		375,917	

^aSource: Universitetskanslersämbetet 2013, p. 55. Numbers are for autumn 2012. Exception is Ersta Sköndal, where numbers are taken from institution's website (May 2014)

^bIndicates private university

To compile this table, first the websites of all higher education institutions were searched with keywords to find honors programs. Then they were all approached by e-mail and/or phone to ask if they had any special provisions for talented students, matching our working definition. All institutions eventually replied

presents an overview of the higher education institutions in Sweden, ranked by student numbers.²⁸

Some Swedish HEIs offer provisions to talented students on an individual basis. For example, at the Swedish School of Sport and Health Sciences (GIH), a special scholarship is available to talented students.²⁹

At the medical university Karolinska Institutet, a special program prepares students for research careers. The program's mission is not to offer extra opportunities to talented students, but to 'stimulate recruitment for graduate studies among medical students'.³⁰ To this end, an introductory research course for medical students runs parallel with the regular medical study program. The course "Research Introductory Course for Medical Students" is divided into two courses over five semesters and also includes two summer projects.³¹ The number of student places is limited to 25 and admission is based on research interest and a motivation letter.

Little development in honors education in Sweden is seen, however, there might be change on the way following the results of the 2012 PISA report.

How is the situation in a country that usually does very well in PISA reports? Finland is the focus of our next chapter.

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²⁸ Some very small specialized higher education institutions were excluded from the list.

²⁹ 'Since 2013 one of our scholarships has been changed and it is now possible for teachers of GIH to nominate students who has accomplished a degree work that the teacher consider to be outstanding. The Board of Scholarships then decides which students who gets the scholarship. We provide scholarships on three different levels of degrees, and the amount of the every scholarship is set to about 1,000–2,000 euro. There are three levels of degree work, and in every period of nomination there will be one scholarship in each level. So totally there will be six scholarships a year' (personal communication from Henrik Schölin, Secretary of the Board of Scholarships at Swedish School of Sport and Health Sciences).

³⁰ See homepage of the program at <http://pingpong.ki.se/public/courseId/5689/coursePath/5586/epc/lang-sv/publicPage.do?item=3851786>. The program is known as Foläk.

³¹ Personal communication from Maya Petrén, administrative officer at Karolinska, March 2014.

³² **Note:** Literature used to prepare this book is included on this list. Some of the entries are in local languages and have not been read completely by the researchers. Instead, they have been searched with keywords to retrieve relevant information.

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Chapter 10

Finland: Excellent Basics, Selective Continuation

10.1 Education System

The general downturn in learning outcomes shows that we must take strong action to develop Finnish education. (Krista Kiuru, Minister of Education and Science, December 2013, quoted in Finnbay 2013)

For a decade, Finland was the dream destination for educational policy makers around the globe. The country's schools were flooded with foreign visitors, wishing to find the secrets of Finland's educational successes.¹ But after the publication of the 2012 PISA report, things changed. Finland dropped to the twelfth place in the overall table, which started a nationwide discussion (Box 10.1).

The aims of the Finnish education system are focused on the growth of the individual as a whole, which means extensive socio-ethical and esthetic education is offered alongside the usual learning of facts (Tirri and Kuusisto 2013, p. 85). More evidence of the priority the place on education comes from the high level of formal education teachers receive. Indeed, all teachers hold a master-level university degree (Ministry of Education and Culture 2014). Another important principle is the focus on equality: 'all people must have equal access to high-quality education and training. The key words in Finnish education policy are quality, efficiency, equity and internationalisation' (ibid, see also Ministry of Education and Culture [Finland] et al. 2014). The comprehensive school promotes social and regional equality by providing teaching, study materials and school meals free of charge for any pupil (Tirri and Kuusisto 2013²).

The Finnish Parliament determines general education policy, which is implemented by the Ministry of Education and Culture.³ The running of all schools

¹ In the 2003 and 2006 PISA reports, Finland placed first overall and in 2009 it was still near the top, scoring second overall among OECD countries (Korea was first).

² They refer to the Basic Education Act 628/1998, Section 2, Section 31.

³ In local languages: Opetus- ja kulttuurijamisteriö/Undervisnings- och kultursministeriet.

Box 10.1: Finland – The Basics

- 5.4 million inhabitants
- Capital: Helsinki
- Republic
- 19 regions
- Bilingual: Finnish and Swedish
- Social-democratic/centre-right coalition in power

up to the level of universities of applied sciences rests in the hands of municipalities. Municipalities can take autonomous decisions on the content and structure of education (Hornyak 2011, p. 52). However, individual schools have great autonomy. Universities are governed at the national level (Box 10.2).

Box 10.2: Education in Finland

- Free at all levels
- Nine years compulsory from age seven
- Integrated primary and lower secondary school in comprehensive school
- Two types of upper secondary school
- Two types of higher education institutions
- Highly selective university entrance exam, strict quota on student numbers
- Ministry of Education and Culture responsible for all levels of education; municipalities run all schools up to the level of universities of applied sciences

Compulsory education in Finland lasts for 9 years (with an optional tenth year, see Nuffic 2012 and Hornyak 2011)⁴ and is organized in comprehensive schools (see Fig. 10.1).

At the lower level, grades one to six, education is uniform for all and delivered by a class teacher, except for foreign languages, which are taught by a language specialist. The teachers at the higher level, grades seven to ten, are specialized subject teachers.

Finland has invested much effort in educating teachers and Finnish teachers enjoy high social prestige. This is demonstrated by a fivefold over-application

⁴After completion of the 9th form, students can complete a 10th form as well, on a facultative basis, where their marks can only be corrected upward, not downward.

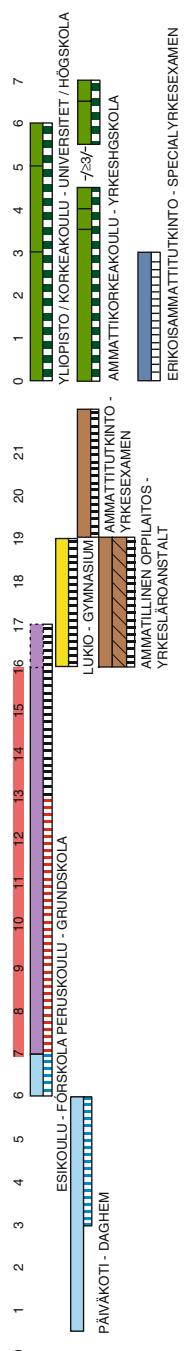


Fig. 10.1 Structure of the Finnish education system (Eurydice 2014) see Fig. 3.1b for standardized legend

rate to teaching programs (Hornyak 2011, p. 54). It should be noted that high over-application rates apply to most study programs in Finland (IBE (International Bureau of Education) 2012).

At the end of comprehensive school, pupils move on to one of two types of upper secondary education. The first, the general upper secondary school (*lukio/gymnasium*), represents the academic path. The second path, vocational education, is varied in its forms. Both qualify students for entrance to higher education. Around 50 % of students go to gymnasium and over 40 % to vocational education, with the rest not following qualification-oriented studies (Eurydice 2014, chapter 6).

The general upper secondary school is designed to last 3 years, ‘but students may complete it in 2–4 years. Instruction is organized in modular form not tied to year classes and students can decide on their individual study schedules rather freely’ (Ministry of Education and Culture [Finland] et al. 2014, p. 18).

The Finnish approach to equality means pupils with learning- or other disabilities are well taken care of. Legislation guarantees their right to receive special education.⁵ This kind of caring constitutes one of the factors behind Finland’s success in the PISA studies (Niemi 2012).

At the end of general upper secondary education, nearly all students take the national matriculation examination (*yliaoppilaustutkinto*). Students who pass this exam have a general qualification to continue in higher education, either universities (*ylipistö* in Finnish), which are more focused on research; or polytechnics (*ammattikorkeakoulu* or *AMK*), which are more focused on vocational education⁶ (see Box 10.3). Since 2005, the higher education sector has been reformed.⁷ Both in polytechnics and universities bachelor, master and Ph.D. degrees can be obtained.⁸ University students are admitted to study for the master degree and it is unusual to stop after taking a bachelor degree (Ministry of Education and Culture [Finland] et al. 2014, p. 23).

⁵There are two types of special education teachers in Finnish compulsory education: special education teachers who teach small group of pupils with learning disabilities and other problems; and special education teachers who support class teachers and subject teachers with children who need special support in some subjects like math or mother tongue (personal communication from Elina Kuusisto, University of Helsinki researcher, May 2014).

⁶Some refer to themselves internationally as universities of applied sciences.

⁷Universities can now have the form of a public corporation or a foundation university. Of the fourteen universities, two are foundations under private law. Polytechnics can be managed by joint municipal authorities (three out of 24) or by limited companies. For more information, see Ministry of Education and Culture 2014 and Eurydice, chapter 7.

⁸The new polytechnic degree system is comprised of the following degrees: *Kandidaatin tutkinto* (first-cycle, bachelor-level degree – it takes three to three and a half years to complete); *Maisterin tutkinto* (second-cycle, master-level degree - in order to be allowed for the second-cycle polytechnic degree a relevant bachelor’s degree and at least 3 years of relevant working experience are required. It takes one to one and a half years of full-time study); *Lisensiaatin tutkinto* (third-cycle, licentiate degree (pre-doctorate degree) – another 2 years); *Tohtorin tutkinto* (third-cycle, doctor’s degree – 4 years). More info in Eurydice 2014, chapter 7.

Box 10.3: Higher Education Landscape

14 universities

24 polytechnics

University access in Finland is very selective, in 2009:

- 188,000 applications were made
- 94,000 students took entrance exam
- 32,000 students were admitted

Entrance to higher education is highly selective and all study paths are subject to quota. The amount of seats for each study path at each HEI is determined in negotiations with the ministry of Education and Culture.

Universities and polytechnics select their students independently. Institutions apply different selection criteria, but the most common procedure includes the grades attained in the matriculation examination together with the results of an entrance examination.⁹ On average, about one third of those taking the exam gain access to university. For the most sought-after studies, such as theatre, dance or psychology, this is less than 10 % (Eurydice 2014, chapter 7.2.1).¹⁰ The Finnish HEIs operate a joint system of online application.¹¹

Finnish universities generally have a good reputation internationally. In international rankings, the University of Helsinki scores highest with a constant place in the top-100 of world universities.¹²

10.2 Culture and Policy Towards Excellence

Since the 1970s the official education policy strongly emphasized educational equality, as in the other Nordic countries. But from the 1980s, the trend shifted towards decentralization, individualization and more diverse education. The resulting changes make the education system more suited for gifted and talented pupils

⁹ In some cases admittance is based on entrance examination only or matriculation examination grades only. In addition, some fields may place additional emphasis on work experience, studies, practical training, etc. There may also be interviews or material-based examinations, and students may be required to demonstrate their skills or aptitude. See Eurydice 2014, chapter 7.2.1.

¹⁰ Numbers are from 2009 (KOTA database). Unfortunately, later numbers have not been published in English.

¹¹ This can be accessed on the website <https://www.yliopistohaku.fi/yshjHakija/>

¹² University of Helsinki is at place 76 in the 2013 Academic Ranking of World Universities Top-500. Four other Finnish universities feature on this list: Oulu, Turku, Eastern Finland and Jyväskylä, all scoring in the 300–500 range.

than the systems in the other Nordic countries. Also, the tradition of school contests and very selective entry to university presents greater room for excellence initiatives for children and youngsters. The concepts of giftedness and talent have been covered quite intensively by Finnish media, although discussions are not always focused. University of Helsinki researcher Sonja Laine (2010) concluded that in Finnish society certain misconceptions exist about the specific meaning and implications of giftedness.¹³

This has led to a situation where gifted children in primary and secondary education are generally taken care of to some extent, while there is still little development in higher education. This could be connected to the very selective admission procedures by the universities. It may also be that information was not found because of the language barrier.¹⁴ However, local researchers confirmed that ‘in general there are no gifted or honors programs in higher education in Finland’.¹⁵ There are some small exceptions, as we will see below (Box 10.4).

Box 10.4: Local Terminology

The following local terms are used to refer to (participants in) honors programs:

- *Lahjakas* (means both gifted and talent)
- *erityislahjakas* (especially gifted and talented)
- *huippuyksikkö* (center of excellence)

In recent years the focus on giftedness and talent in general has also taken shape in policies and legislation. In 2007 the fostering of talent and creativity became a national educational goal. The ministry’s program “Education and Research 2011–2016” defined equality of education as entitling every person, including the gifted, to develop his or her different kinds of talent (Tirri and Kuusisto 2013, p. 91. See also Ministry of Education and Culture [Finland] 2011). The Basic Education Act allows flexible decisions with respect to acceleration (Tirri and Kuusisto 2013, p. 88).¹⁶ There are also programs specially designed for gifted and talented pupils

¹³ In a review of the public discussion of giftedness between 2000 and 2007, Laine concluded that ‘giftedness is seen as multidimensional, and both intrapersonal and environmental contributions are recognized as essential in talent development’. However, common misunderstandings were that ‘every child is gifted’, that ‘gifted children can succeed on their own’ and that they were perceived as having problems in their social life.

¹⁴ None of the researchers for this book knew any Finnish. Gathering information and communicating with the universities proved quite difficult, sometimes due to lack of information available in English.

¹⁵ Personal communication from University of Helsinki researcher Elina Kuusisto, January 2014.

¹⁶ Parents can decide that their children start school at the age of six instead of seven. Another possibility for acceleration is the ungraded school, where pupils are allowed to advance within a flexible schedule. These ungraded schools have been in use in the upper secondary schools since 1994. The same is experimented for elementary schools.

with optional enrichment alternatives. These include intensive courses, competitions and summer camps in mathematics and physics (*ibid*). In Helsinki there are also bilingual elementary schools, where children receive teaching in both Finnish and another language (e.g., English, French, German or Russian). These schools select their pupils according to their own criteria.

Although no special legislation regarding gifted and talented children exists, the focus on individualization means they are – in principle – taken care of by teachers.¹⁷ However, usually teachers are more concerned about weaker pupils and pupils with learning disabilities, which reflects Finnish ethos and interpretation of equality (Tirri and Kuusisto 2013; Laine 2010) (Box 10.5).

Box 10.5: Key Players in Excellence

The following institutions are the most important players in the field of talent and excellence in education:

- Ministry of Education and Culture – sets principles and guidelines for education
- Finnish National Board of Education
- Academy of Finland – awards centre of excellence status in research
- Individual researchers, most notably professor Kirsi Tirri
- The Nordic Talent Network – Nordic network for improving education for talented students

The upper secondary level has witnessed an increase in the number of ‘special schools’, focusing on the education of talented youngsters in arts, sports, sciences and languages. According to Finnish researchers Kirsi Tirri and Elina Kuusisto, ‘these special schools can just as well be called schools for the gifted and talented as it is very difficult to be accepted into them’. Selection is based on the marks of the student, while most places organize their own admission exam as well. There are also several enrichment alternatives available to talented high school pupils. For example, groups have met at the University of Tampere on evenings and weekends to be more challenged in mathematics and physics (Tirri and Kuusisto 2013, p. 90. See also Hornyak 2011).

Two internationally famous examples of provisions for talented youngsters are Päivölä boarding school and the Millennium Youth Camp. Founded in 1994, Päivölä, a private independent boarding school, emphasizes mathematics and natural science and is sponsored by phone company Nokia. There are 20 students between the ages of 15 and 18, who get selected in a weekend of testing. The students participate in both domestic and international competitions and graduate from upper secondary school in 2 years instead of 3 years.¹⁸

¹⁷In addition: ‘to promote teachers abilities to better recognize and support gifted pupils, the Finnish National Board of Education implemented the Project for the Development of Gifted and Talent’s Education in Finland during 2009 to 2011’ (Tirri and Kuusisto 2013, p. 89). See also <http://www.lahjakkuus.fi/page41.php> for more details.

¹⁸This brief description is based on Tirri and Kuusisto 2013. The program is described also in Hornyak 2011.

The National LUMA Centre¹⁹ organized the first Millennium Youth Camp in 2010. The camp is geared towards 16- to 19-year-olds, who are gifted in science. Thirty students participate free of charge and are selected in a two-stage application process. In 2012 there were more than 1,400 applicants from 100 countries. During the 1-week camp, students meet researchers and scientists, go to presentations and workshops, and carry out projects in teams. They get the possibility to network with like-minded people and enjoy a feeling of togetherness.²⁰

On the research side, focus on excellence has been common for many years. Focus, as in Norway, prioritizes the institutional side of excellence. Since 1997, the Academy of Finland has been sponsoring a ‘Centres of excellence’ program, providing extra funding to excellent and innovative research groups (Academy of Finland 2014). Funding is provided for 6 years and in the latest round (the period 2014–2019), 14 Centres received awards.

10.3 New Developments

Finland was surprised by the disappointing 2012 PISA results. This has led to a discussion about education policy (see for example Finnbay 2013) and some worries in the government (see Ministry of Education and Culture 2013).

One major change, beginning in 2016, involves the national matriculation exam which will be held electronically. This change can have a large impact on school pedagogy and increase developments of new technology supported pedagogies in Finnish schools.²¹

However, in the latest Education and Research Development Plan (published in 2012), the promotion of equality was the top focus point. This means that a sudden development of programs for talented and gifted pupils in basic education or honors programs in higher education is not to be expected.

10.4 Honors Programs per University

The search for honors programs in Finnish higher education was limited to the 14 universities in the country. A number of universities takes part in international cooperative programs, such as CEMS-MIM (Aalto University) and Erasmus Mundus (Helsinki). Institutions organize special events for motivated students, such as summer schools.²² However, development of honors programs is limited. Three disciplinary honors programs were identified. They are shown on Map 10.1.

All universities are shown in Table 10.1.

¹⁹LU stands for “luonnontieteeet,” or natural science in Finnish, and MA for mathematics.

²⁰For more information, see Tirri and Kuusisto 2013 and Hornyak 2011.

²¹Personal communication from University of Helsinki researcher Elina Kuusisto, May 2014.

²²An example is the 3-week Helsinki Summer School, organized by University of Helsinki, Aalto University and Hanken School of Economics. For more information, see www.helsinkisummerschool.fi/home/index

Map 10.1 Finnish universities with honors programs, 2014



Table 10.1 Honors programs at Finnish universities

University	Webpage	No. of students, 2013 ^a	Honors education offer
University of Helsinki	Helsinki.fi/university	35,189	No
Aalto University	Aalto.fi	19,386	Yes
University of Turku	Utu.fi	17,423	Yes
University of Tampere	Uta.fi	15,365	No
University of Eastern Finland	Uef.fi	15,353	No
University of Oulu	Oulu.fi	15,154	Yes
University of Jyväskylä	Jyu.fi	13,301	No
Tampere University of Technology	Tut.fi	9,826	No
Åbo Akademi University	Abo.fi	6,267	No
University of Vaasa	Uva.fi	5,251	No
Lappeenranta University of Technology	Lut.fi	4,811	No
University of Lapland	Ulapland.fi	4,578	No
Hanken School of Economics	Hanken.fi	2,385	No
University of the Arts Helsinki	Uniarts.fi	2,039	No
Total		166,328	

^aSource: Statistics Finland (2014)

To compile this table, first the websites of all universities were searched with keywords to find honors programs. Then they were all approached by e-mail and/or phone to ask if they had any special provisions for talented students, matching our working definition. All institutions eventually replied. Most of this work has been carried out by honors student Vincent Warnaar

10.4.1 *Aalto University*

At Aalto University's Information and Computer Science department, an honors program was started to identify research talents. Participants get the opportunity for an early start with research work, leading towards a research career (Table 10.2).

10.4.2 *University of Turku*

Beginning in 2013, the University of Turku offers talented students in physics a 'fast track' program that includes extra courses during the summer, enabling students to graduate faster. The program advertises the ability to attain a 'master's degree in three years'. Admission mandates passing qualifying exams (Table 10.3).²³

Table 10.2 Aalto University – Honours Programme in Information and Computer Science

<i>Organizing institution</i>	Aalto University, Department of Information and Computer Science
<i>Form</i>	Disciplinary program
<i>Target group</i>	Master students (participation for maximum of 2 years)
<i>Admission</i>	Based on grades and study progress, selection by steering committee
<i>Description</i>	Participating students get associated with a research group and are offered employment in research-related work, part-time during semester and full-time in summer
<i>Founded</i>	2009
<i>Participants</i>	Around ten students at the time
<i>Website</i>	http://ics.aalto.fi/en/studies/honours_programme/

Table 10.3 University of Turku – Physics fast track

<i>Organizing institution</i>	University of Turku, Faculty of Mathematics and Natural Sciences
<i>Form</i>	Disciplinary program
<i>Target group</i>	Bachelor students
<i>Admission</i>	Based on grades, program starts with summer course with examinations at the end
<i>Description</i>	Participating students skip some courses and work more hours year-round, in order to graduate faster. They start the program with an intensive summer course, followed by some examinations. If they pass, they can move straight to the second year. They will then continue to do courses faster
<i>Founded</i>	2013
<i>Participants</i>	3 in total
<i>Website</i>	www.utu.fi/fi/yksikot/sci/yksikot/fysiikka/opiskelu/fasttrack/Sivut/home.aspx

²³ More information (Finnish only) at www.utu.fi/fi/yksikot/sci/yksikot/fysiikka/opiskelu/fasttrack/Sivut/home.aspx

Table 10.4 Oulu University – Language honors program

<i>Organizing institution</i>	Oulu University, Languages and Communications extension school, in connection with Oulu business school
<i>Form</i>	Disciplinary program
<i>Target group</i>	Bachelor students
<i>Admission</i>	Based on grades
<i>Description</i>	Students in the business school who are good in a certain language can follow high-level courses in this language and if they get good marks, they receive an honors certificate
<i>Founded</i>	Around 2003
<i>Participants</i>	Unknown
<i>Website</i>	www.oulu.fi/kielikoulutus/node/10235 (Finnish only)

10.4.3 University of Oulu

The University of Oulu's Languages and Communications School provides possibilities to receive an honors certificate in different languages, including German and English. To receive the degree, students must choose a specific combination of high-level language courses spanning a minimum of 12 credits and study results must be excellent. The program, initiated by an overseas scholar in the Oulu Business School over 10 years ago, has existed ever since (Table 10.4).²⁴

We came across a few small-scale honors programs at Finnish universities. To conclude our discussion of the Nordic countries, we will now describe the situation in Iceland.

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Chapter 11

Iceland: Getting Back on Track

11.1 Education System

Between 2007 and 2009, GDP per capita in Iceland dropped from 48,000 to 27,200 euros. (Eurostat 2014)

In 2008, the Icelandic economy was heavily hit. All three of its major banks collapsed, currency value dropped severely and the country entered a period of political and economic unrest. The whole economy, which focused on financial services, had to be reinvented. The crisis was dealt with relatively quickly and successfully. Many sectors have been reformed, including the education system which had already gone through some major reforms the years before. In the last decade, the higher education sector has been firmly established institutionally. It seems Iceland is now in calmer waters and can focus on building from its new structures (Box 11.1).

A fundamental principle of the Icelandic education system is that everyone should have equal opportunities to acquire an education, irrespective of sex, economic status, residential location, religion, possible handicap, and cultural or social background (Ministry of Education, Science and Culture 2002). This principle holds consistency with the other Nordic countries. However, due to its remote geographic location, small population and specific traditions, the education sector has a special place in Icelandic society. Education is focused on a broad development of the child, with special attention for 'life skills' (Box 11.2).

As in the other Nordic countries, compulsory education is carried out in an integrated primary and lower secondary school (see Fig. 11.1). Such a *grunnskóli* can be very small in rural areas, but can hold up to 1,200 pupils in Reykjavík. In grades one through seven, pupils usually have one classroom teacher, while from year eight upwards, pupils receive teaching from a number of different teachers. In recent years, a kind of differentiation has become common in grades eight to ten. The differentiation process lies largely with the pupils themselves, who form groups. 'Pupils select a group according to ability, i.e. the best pupils choose a group where they can accelerate in the subject, then there is a group for average pupils and the

Box 11.1: Iceland – The Basics

- 0.3 million inhabitants
- Capital: Reykjavik
- Republic
- Centre-right coalition in power

Box 11.2: Education in Iceland

- Free at all levels
- Compulsory from age 6 to 16
- Integrated primary and lower secondary school in *grunnskóli*
- Four types of upper secondary school programs, students can regulate own speed
- University admission through entrance exam (*Stúdentspróf*)
- All education comes under the jurisdiction of the Ministry of Education, Science and Culture. Municipalities operate pre-primary and compulsory schools, upper secondary schools and higher education institutions are run by the state or private parties

weakest pupils choose a group where the subject matter is covered more slowly' IBE (2012). Also, compulsory school pupils 'are entitled to enroll in particular subjects at upper secondary level while still in compulsory school, as long as they demonstrate the necessary competence' (Compulsory School Act 2008, article 26).

Upper secondary education comes in four types, ranging in approach from more theoretical to more vocational. Education is freely available to all youth aged 16–18. Schools may set admission criteria¹ and some schools are more popular than others, for example because of reputation, size or facilities.² Students can regulate their own speed of education, as subjects are usually taught in a unit-credit system. On average, the university entrance exam (*Stúdentspróf*) can be taken after 3 or 4 years.

While the University of Iceland was founded only in 1911, there is a long history of university attendance in Icelandic history. During the Middle Ages a significant

¹The requirements for admission made by the school are prescribed in an agreement between the upper secondary school and the Ministry of Education, Science and Culture. Most schools are public, but there is also a small number of private upper secondary schools (see Eurydice 2014, chapter 6).

²There are 34 upper secondary schools in Iceland. The smallest has around 100 pupils, the largest around 2,000. In rural areas, boarding options are often available. See Eurydice 2014, chapter 6 for more information.

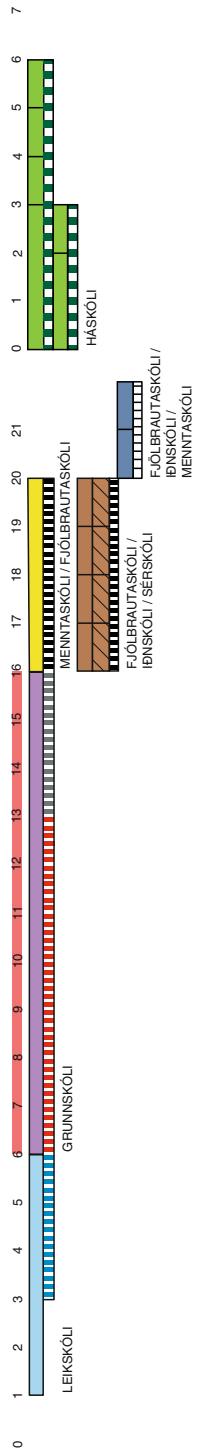


Fig. 11.1 Structure of the Icelandic education system (Eurydice 2014) see Fig. 3.1b for standardized legend

number of Icelandic young men went to European universities for their education (Jonasson 2004, p. 140). Still, it is common for Icelandic students to spend a period abroad.

All tertiary education institutions are referred to locally as *háskoli*. There are four institutes operated by the state, while private parties with state support operate an additional three (Eurydice 2014, chapter 7.1). The (public) University of Iceland is by far the largest institution, followed by the (private) Reykjavik University (see Table 11.1, in sect. 11.4). HEIs can set their own admission criteria. In practice, criteria differ per subject. For popular courses, such as medicine, law and economics, entrance exams are held. The public institutions are free, while the private ones charge tuition fees.

The higher education sector in Iceland is still young and in the last decade, it has been under reform.³ After the 2008 banking crisis an international expert panel was brought in to conduct a review of the system. They recommended reshaping the education and research landscape and effectively bring it back to two universities, with some regional campuses (Taxell et al. 2009). This recommendation has not been followed, but in 2010 the government adopted a new policy in which universities must form a strong collaborative network (Ministry of Education, Science and Culture [Iceland] 2010). In 2011, new national curricula came into effect. In basic school, greater emphasis is placed on design-, arts and crafts-, vocational and technical studies. Upper secondary schools have more freedom in designing programs. The arts and cultural education sector also went through a thorough review, following a 2009 report (Bamford 2009). Here talent development was explicitly named a goal, especially in music.

Recent education policy is also shaped by the Iceland 2020 paper, which was published in 2011. This policy statement was drawn up after a dialogue between hundreds of individuals, interest groups and authorities, following the banking crisis. The paper contained a vision for the future ‘for Iceland to become a fully-fledged member of the group of Nordic welfare states, which guarantee social security and the equality of citizens’ (Government of Iceland 2011). Education was named ‘a key factor’ and the importance of equality was restated, ‘A sound education and universal equality are the preconditions that will enable the nation to successfully embrace this future’ (ibid).

11.2 Culture and Policy Towards Excellence

While the egalitarian culture remains strong, as seen in the offer of educational opportunities, Iceland also has a tradition of appreciating talent, especially within the arts. There are different competitions between schools. In lower secondary school, a talent competition in arts exists, with the annual *Skrekkur* competition for 13- to 15-year-olds as most famous example. In upper secondary schools, an annual

³New legislation regulating the sector has been passed in 2006 and 2008.

quiz competition called *Gettu betur*, has been broadcast on public television since 1986. Teams of three students from each of Iceland's gymnasiums compete against each other. This competition has been won 18 times by Iceland's most famous gymnasium, Menntaskólinn í Reykjavík. For several years an annual music competition between all secondary schools in the country has also been held.

Some special provisions for talented children were made by local authorities in the past. From 1985 to 1997, the City of Reykjavík supported The Curriculum Enrichment Service, an extensive program offering extra opportunities to gifted children aged 6–16. The program was stopped due to political reasons (Freeman and Josepsson 2002, p. 39).⁴ From 2000 to 2004 a program called *Gifted children – Appropriate assignments* (*Bráðger börn – Verkefni við hæfi*) was offered by the Education Centre of Reykjavík in a collaboration with the University of Iceland and National Parent's Association in Iceland, and in 2003/2004 a working group was asked by the government to prepare a report on provisions for gifted children in elementary schools (Fræðslumiðstöð Reykjavíkur 2004) (Box 11.3).

Box 11.3: Local Terminology

The following local terms are used to refer to gifted/honors education:

- *Bráðger börn* (gifted children)
- *Dýpkun* (enrichment)
- *Afburðanámsmenn* (outstanding students)

In a 2009 European report, researchers concluded that while ‘there is not a specific centralised policy concerning the education of gifted learners (...) the National Curriculum Guidelines for Compulsory Education envisages that gifted learners are entitled to enriched learning opportunities to develop individual skills and talents, for example by providing pupils with accelerated and distant learning in upper secondary school courses and in specific subject matters’ (European Agency for Development in Special Needs Education 2009, p. 14).

An explicit focus on excellence in another policy area appeared in 2007, when the Science and Technology Policy Council identified particular fields ‘where Icelanders have the potential of achieving a specific success internationally’ and issued a call for proposals for ideas for Centres of excellence or research clusters in these fields (Rannis 2014). Three Centres were eventually allocated grants: the GEORG center focusing on geothermal energy and the EDDA center focusing on equality and diversity, both located at the University of Iceland; and the independent

⁴In an overview of provisions in Iceland, Freeman (2002, p. 97–98) concluded that since then ‘there has been no special provision for the gifted in Iceland because the political atmosphere forbids any taint of élitism’. Still, in an effect study conducted in 2000 comparing participants and non-participants, the participants not only had a more positive attitude to education and life in general, but also a stronger self-concept. See Freeman and Josepsson 2002 for more information.

Icelandic Institute for Intelligent Machines. Focus is clearly on research, but a spin-off effect may be that Icelandic higher education institutions become more familiar with competition for funding and the concept of excellence (Box 11.4).

Box 11.4: Key Players in Excellence

The key players in excellence in education in Iceland include:

- Ministry of Education, Science and Culture
- Rannís – Icelandic Research Council
- Menntaskólinn í Reykjavík (upper secondary school)
- University of Iceland

In addition, the new educational institution ‘Keilir – Atlantic Centre of excellence’ was founded in 2007. The objective of this private non-profit institute is ‘to prepare students, who have a vocational training and/or sufficient practical experience in industry, with the knowledge and competency necessary for further studies at university level’. It is owned by the University of Iceland and a number of Icelandic companies (Keilir 2014).

11.3 New Developments

Some recent developments may lead to more focus on talent development in the Icelandic education system. The new government, that came into power after the 2013 elections declared increased continuity between the different school levels as a primary goal. Ideally, students can begin university studies at least 1 year earlier than is customary. Currently, Icelandic students start university studies at the age of 20 or older (Statistics Iceland 2012). New programs may be developed for talents, to stimulate them to progress through the education system faster.

Also, Iceland faced disappointing PISA results. In the 2012 report, Iceland reached its lowest scores ever compared to preceding reports. The government expressed worry, especially about the negative trend in reading skills (Björnsdóttir 2013). New policies may develop to reverse this trend.

11.4 Honors Programs per Higher Education Institution

At the time of writing, no honors programs were found at Iceland’s seven higher education institutions (see Table 11.1). However, some provisions for talented students are worth mentioning.

At the University of Iceland, students run a company that does contractual work for outside agencies in which students are hired to work on projects related to their field of study (Eurydice 2014, chapter 7.2.1).

Table 11.1 Higher education institutions in Iceland

Higher education institution	Webpage	No. of students, 2011 ^a	Honors education offer
University of Iceland	Hi.is	13,919	No
Reykjavík University ^b	Ru.is	2,468	No
University of Akureyri	Unak.is	1,493	No
Bifröst University	Bifrost.is	431	No
Iceland Academy of the Arts ^b	Lhi.is	414	No
Agricultural University of Iceland	Lbhi.is	238	No
Holar University College ^b	Holar.is	172	No
Total		19,135	

Note: To compile this table, first the websites of all HEIs were searched with keywords to find honors programs. Then they were all approached by e-mail and/or phone to ask if they had any special provisions for talented students, matching our working definition. All institutions eventually replied

^aSource: Statistics Iceland (2012)

^bPrivate institution

Reykjavík University participates in several Nordic Master Programmes and has a double degree program in computer science with UNICAM University in Italy.⁵ Talented students at Reykjavík University are also stimulated by a system of scholarships. Outstanding upper secondary school students can have their tuition fees for the first semester waived and students who achieve the best results in each examination period 'have a chance to be on the Dean's List and have their tuition fees for the next semester waived. As a general rule, approximately 3 % of students shall be included on the Dean's List at each time' (Reykjavík University 2014).

The Iceland Academy of the Arts (IAA) is a special case. In arts education, focus on talent development remains strong and consistent with the Icelandic tradition of appreciation of talents in arts. Over the last few years, about one in every four applicants has been granted admission.⁶ IAA also runs a special diploma program in the Department of Music, meant for young talented students from the age of 16 who play an instrument at a high level, but have not yet completed a formal education from the secondary system in Iceland. Their courses at IAA are evaluated as part of their studies at the secondary school.⁷

This concludes our chapter on Iceland and also the part of this report about the Nordic countries. While these countries share the same basic structure for compulsory education, the development in higher education with respect to stimulating excellence has proven to be varied. Development of honors education is strong in Denmark, but in the other countries only a few small-scale programs in Finland were found. However, in most countries incentives exist to change this situation and move towards more differentiation within education. The Nordic Talent Network might also play a role in the further development of programs for gifted and talented students.

⁵However, for this program, no special admission procedure is in place.

⁶Although comparable statistics are not available for all Icelandic higher education study paths, this is considered a very strict selection.

⁷Personal communication from Björg J. Birgisdóttir, Director of Academic Affairs (February 2014).

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Part IV

The German-Speaking Countries



Map IV.1 The German-speaking countries

Germany, Austria and Switzerland share a number of features: they are federal states,¹ German is a main language² and in the school system children are placed according to academic abilities at an early age. This means that most academically gifted students are likely to be found in a particular type of school, for example, *Gymnasium* in Germany (European Agency for Development in Special Needs Education 2009, p. 20).

In all countries, provisions are present for talented and gifted children in primary and secondary education. These provisions have a long tradition: according to German professor Albert Ziegler et al. (2013), measures to support talented and gifted children have been in place since the late eighteenth century.³ These measures can be found inside but especially outside the school system. Associations like *Jugend forscht* in Germany and Switzerland and the *Deutsche Schüler/JuniorAkademie* challenge children in summer camps and other meetings. Youth can also get acquainted with the university early on, for example, through the *KinderUni* and *Schüler/innen an die Hochschulen* programs in Austria.

Another feature found throughout the German-speaking countries is the role of private foundations in sponsoring both individual talented youngsters and programs for this group. These foundations can be neutral, but are often based on an ideology or related to a church. Particularly in Germany, these foundations play an important role in providing opportunities for excellent students (independent from the universities), both financially and as a network opportunity. Some foundations also work across country borders, such as the WiWi talents program that is open to all German-speaking students in economics⁴ and the business-sponsored German-language e-fellows network that brings together talented students from different countries and focuses on career development.⁵

Experts on gifted education from the three countries have been working together in the International Panel of Experts on Gifted Education (iPEGE, see www.ipege.net and iPEGE 2009) to promote the dissemination of knowledge about gifted education and provide tools for teacher training.⁶

Apart from the similarities and cooperation efforts, there are also differences between and within the countries. While honors programs have been developed in Germany and Austria, they are still absent in Switzerland. Within Germany, the state of Bavaria focuses heavily on talent development and has more programs and other facilities than other states.

¹ Germany and Austria are federal states, Switzerland is a confederation.

² In Switzerland, four official languages are spoken: apart from German, these are French, Italian and Romansh.

³ The authors provide a historic overview of the development of gifted education in the German-speaking countries.

⁴ See www.wiwi-online.de

⁵ See www.e-fellows.net

⁶ At the time of writing iPEGE has published four brochures. One of these, called Professional Promotion of the Gifted and Talented – Recommendations for the Qualification of Experts in Gifted Education is also published in English (iPEGE 2009).

We have focused mostly on universities in our search for honors programs. This is partly because in the German tradition, there is quite a big difference between universities and universities of applied sciences (*Fachhochschulen*), and most talent programs are expected to be found at the university level. The focus on universities is also due to a practical reason. In Germany, there are over 100 universities. In addition, there are over 200 *Fachhochschulen*. Contact was made with an organization of these institutions at the national level: the *Hochschulrektorenkonferenz*.⁷ They did not know about any programs fitting our description of honors programs, but could not be sure there are none and recommended us to contact the institutions individually. This was unfortunately not possible in the time frame of this research project.

In the next chapters, similarities and differences in the development of honors programs among the German-speaking countries will be discussed in detail.

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⁷ See www.hrk.de

Chapter 12

Germany: Foundations Supporting Talents

12.1 Education System

Bachelor's qualifications with the addition "Honours" ("B.A. Hons.") are excluded. (KMK 2010)

This sentence, in an official federal policy document dating back to 2003, is of great influence to the development of honors education in Germany. It effectively prohibits honors programs; students cannot have the completion of a program recognized concurrently with their regular bachelor diploma.

This might be one reason for the still limited development of 'official' honors programs in Germany, while the supporting infrastructure that would be needed for its development is generally speaking quite complete.

Another reason is the tradition of providing individualized financial support to students, often called *Stipendium*. There is an extensive support system in which universities themselves, private foundations or companies offer grants to students, to cover their living expenses (there are no tuition fees at public universities – see more information below). Often the students who can benefit from these programs are selected on the basis of 'talent', which can be defined in many ways. Mostly, selection is based on grades, motivation letters and/or interviews. While there is much focus on this individualized support system, there are fewer examples of extra educational opportunities for talented students as a group. However, the picture is varied throughout the different states of the federation Germany.

The country exists in its current form since 1990, when the former German Democratic Republic (Eastern Germany, DDR) merged into the (western) Bundesrepublik. Germany now consists of 16 states (*Bundesländer*), which have a large range of responsibilities and their own government (Box 12.1). Responsibility for education is mostly at the level of the Bundesländer. They each have a ministry of Education. The Federal Ministry of Education and Research¹ only creates general

¹ In German: *Bundesministerium für Bildung und Forschung*.

Box 12.1: Germany – The Basics

- 82 million inhabitants
- Capital: Berlin
- Federal republic
- 16 Bundesländer (states)
- Social-democratic/christian-democratic coalition in power

Box 12.2: Education in Germany

- Managed mostly by the Bundesländer
- Compulsory from age 6 to 15 in most Länder
- Primary education at *Grundschule*
- Four types of lower secondary (compulsory) education
- *Gymnasium* upper secondary education leads to university
- Higher education in research universities and universities of applied sciences (*Fachhochschulen*)
- University student numbers restricted for around half of all study paths
- Universities traditionally research-oriented, research also in institutes
- Standing Conference of the Ministers of Education and Cultural Affairs of the Länder (KMK) handles central matters

guidelines for education (Nuffic 2012, p. 5). Education policy is coordinated by a ‘standing conference of state ministers of education and cultural affairs of the Länder’, known as KMK (Box 12.2).²

Primary education is 4 years (age 6–10) and provided at *Grundschule*.³ Most pupils attend state schools, although other schools based on religion or method are available.⁴ The secondary school can be divided into two phases: Sekundarstufe I (covering the compulsory education period) and Sekundarstufe II (upper secondary education). Basically, there are four options for Sekundarstufe I, although the specifics differ per state⁵ (see Eurydice 2014, chapter 6.1, KMK 2012 and Fig. 12.1).

² In German: Kultusminister Konferenz (KMK).

³ Before this, there is Kindergarten (age 3–6), which is not compulsory and not part of the official system, although most children attend. Responsibility is with the ministries for youth of the different Länder.

⁴ For example Montessori and Waldorf/Steiner schools.

⁵ The four options are:

1. *Hauptschule* (providing basic general education, only at lower secondary level) and
2. *Realschule* (providing more extensive general education, offering possibilities for entrance to higher (vocational) education) are mainly geared towards vocational education.
3. *Gymnasium* (preparing for general higher education entrance qualification)

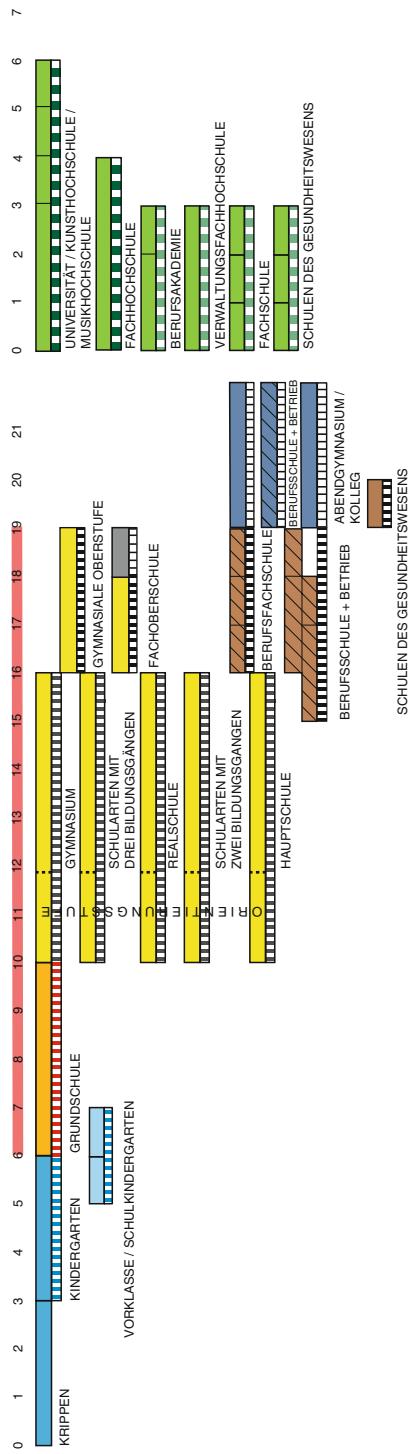


Fig. 12.1 Structure of the German education system (Eurydice 2014) see Fig. 3.1b for standardized legend

As Gymnasium offers ‘intensified general education’, most talented students are likely to be found here (Eurydice 2014, chapter 6.1 and 6.4; see also Freeman 2002, pp. 80–82).⁶

German 15-year-olds score above average among OECD countries in all subjects in the PISA report. Since 2003, it is one of the few countries to have improved in both mathematics performance and equity score (OECD 2013).

Germany’s higher education sector is impressive in numbers. There are 392 institutions of higher education (see Box 12.3⁷), offering over 16,000 study programs (Statistisches Bundesamt 2014, p. 5). They have a combined student population of approximately 2.4 million (BMBF 2014; HRK 2013).⁸ Almost 94 % of all students are taught at public higher education institutions (HRK 2014). The rest is taught at private or church-maintained institutions, which are predominantly small and specialized (HRK 2013).⁹

Box 12.3: Higher Education Landscape

110 universities

226 universities of applied sciences (*Fachhochschulen*)

56 specialized colleges of art and music

Historically, entrance to German universities was through the *Abitur* (exam)¹⁰ at a Gymnasium. The diploma awarded is called *Zeugnis der Allgemeinen Hochschulreife*. While most people still enter this way, in recent years the picture

4. *Gesamtschule* is a comprehensive school that offers teaching at different levels. In 2010, division of pupils among the different kinds of schools was as follows: *Hauptschule* 16.6 %; *Realschule* 25.0 %; *Gymnasium* 36.3 %; *integrierte Gesamtschule* 9.2 %; other types of schools offering several courses of education 7.8 %, special schools 4.2 %. (KMK 2012, p. 3). After completing Sekundarstufe I at *Hauptschule* or *Realschule*, there is usually a type of examination. Afterwards, there is vocational training available.

⁶Education at a Gymnasium traditionally takes 9 years, but some Länder are in the process of reducing this to 8, while in others 8- and 9-year courses are both offered. There was a general move towards 8-year gymnasium, but there has been a reversal in trend as parents consider 8 years to be too demanding for their children.

⁷The list of universities at www.bmbf.de/en/6574.php was used as a basis. Numbers differ slightly from the list used by the Statistisches Bundesamt 2014, but all major institutions are included on both lists. See for more information Appendix 1.

⁸The following institutions are part of the university system: *Universitäten*, *Technische Universitäten/Hochschulen* and other *Wissenschaftliche Hochschulen* of similar level, such as *Pädagogische/Erziehungswissenschaftliche Hochschulen*, *Medizinische Hochschulen* and *Philosophisch-Theologische Hochschulen* (Nuffic 2012, p. 10).

⁹The private institutions often focus on a very limited range of subjects, for example business administration, media studies or design. There are 239 government-funded institutions of higher education, compared with 113 private and 40 church maintained institutions.

¹⁰*Abitur* includes four or five subjects and at least two of those must be taken at an advanced level.

has become more varied.¹¹ To enter universities of applied sciences, students can also take exams for a specific diploma called *Fachhochschulreife*.

A qualification does not guarantee a place, as there are more potential students than places and studies are subject to quota. Places at universities are awarded using a number of different admission quotas, based on federal or state law (see Box 12.4).¹²

Box 12.4: Student Quota

For a lot of study programs in Germany student quotas are set. These quota can apply nationwide (for example in medicine), locally (per state/Bundesland) or per institution. There are local restrictions on admission to over 50 % of all study courses. For the study programs with nationwide quota, allocation is as follows:

- 20 % of places go to highest achievers;
- 20 % to those longest on the waiting list;
- a small number (2 %) to students disadvantaged in some way ('hardship cases');
- allocation of the rest of the places is up to the university. Usually grade point average is used as criterion, but selection through interviews and/or entrance examinations is also common.

The system of nationwide quota is centrally administrated by the Foundation for Higher Education Admission.

Participation in tertiary education is below the EU average in Germany, as indicated on Map 2.1 in Chap. 2. This is partly due to the fact that for quite a few jobs, qualifications from upper secondary education are sufficient. On-the-job-training is also very common: the concept of dual learning (working and learning at the same time) is well-known in Germany.

Most German universities are public institutions and while there are no tuition fees, students usually pay a small fee to the university (around € 60 per semester). For students, national grants and loans are available in the Bafög program, named after the law initiating it in 1971 (see BMBF 2014).¹³ Apart from that, students can also support themselves with grants and stipends from private institutions (more information below).

¹¹ Possibilities for people not holding this certificate have expanded. They can take tests to show that their level is sufficient to keep up with other students. Also, other schools than Gymnasiums can organize *Abitur* exams.

¹² In German: *Stiftung für Hochschulzulassung* (SfH). The states and the individual higher education institutions can also commission the Foundation for Higher Education Admission to operate a service for the relevant courses of study.

¹³ Bundesausbildungsförderungsgesetz (Federal Training Assistance Act). According to the Federal Statistical Office, approximately 979,000 students were awarded BAfög grants and loans in 2012. Roughly speaking, this amounted to around 20 % of the total number of students in higher education.

Germany has a long tradition of providing high-quality university education. The oldest is the University of Heidelberg, founded in 1386. Six other universities were founded in the fifteenth century. At present, German universities are found prominently in international rankings: 38 German institutions made the top-500 on the 2013 Shanghai list, with the University of Heidelberg, University of Munich and Technical University of Munich scoring highest.

When reviewing rankings, it is good to keep in mind that substantial research in Germany occurs in specialized independent research institutes. These research institutes are mostly organized in the form of societies. Most prominent example is the Max Planck Society, an association of 82 research institutes, many being ranked in the top of their respective field (Max Planck Gesellschaft 2014).¹⁴ While German research already scores well in international university rankings, its research achievements remain underestimated when just considering universities.

12.2 Culture and Policy Towards Excellence

The past fifteen years have witnessed rapid, fundamental, and far-reaching changes in the attitudes held and approaches taken to the topic of giftedness by schools, researchers, and ministries of education in German-speaking countries. (Ziegler et al. 2013, p. 386)

Generally speaking, German culture is somewhat ambivalent towards intentionally labelling academic excellence. Germany fosters an overall egalitarian tendency, based on the idea that too much praise leads to elitism. At the same time talent development in Germany has a long but sometimes difficult history (Ziegler et al. 2013¹⁵). For example, the former GDR had an intricate system of talent development, of which the most well-known example occurred in the field of sports (Nagy and Györi 2011, p. 79). Yet criticism of this program arose surrounding accusations of doping being a structural element (see for example Spitzer 2004).

After the reunification in 1990, the federal government recognized the need for talent development in order for Germany to keep up its economic achievements. Soon, a program was established and financial support for a number of programs and competitions was secured. By 2005, a yearly federal budget of approximately 100 million euros became available for nationwide activities (Van Eijl et al. 2005, p. 134, own translation). In the same year, the Excellence Initiative in research gave a significant boost to the support of excellence programming throughout the university system. In order to understand the current state of affairs in higher education, we will first discuss three elements of the culture towards excellence separately: provisions for children in primary and secondary education age, individual grants and programs by private foundations, and the Excellence Initiative.

¹⁴Since 1948, seventeen Nobel laureates came from the Max Planck institutes. Other prominent research institutes include the Helmholtz, Fraunhofer and Leibniz societies.

¹⁵The authors provide an overview of early initiatives.

12.2.1 Primary and Secondary School Age

An extensive network to identify talented students and provide them with extra opportunities is in place in primary and secondary education. This is partly provided in school, in the form of acceleration possibilities and extra lessons. There are also a few schools aimed exclusively at talents. Examples include a public school, Schloss Hansenberg in the state of Hessen, and a private school, Sankt Afra in Saxony. Both are boarding schools for gifted students in upper secondary school.¹⁶ There are also programs in which individual universities work together with gymnasiums in different forms. One example is TUMKolleg, in which TU München works with the Otto-von-Taube Gymnasium. A maximum of 15 selected gymnasium students follow courses and do their own research project at the university.¹⁷ Also, different universities have programs, generally known as Frühstudium (early studies), in which talented secondary school students can follow courses at universities. More info can be found in Baumgartner 2014.

However, talent development is organized mainly outside or alongside the school system. A large number of competitions, talent camps, summer schools and talent development programs are available, mostly sponsored through private foundations. The best-known and largest programs are the German Student Colleges (*Deutsche Schüler Akademie, DSA*) and German Junior Colleges (*Deutsche JuniorAkademie, DJA*).

The DSA program, founded in 1993, has support from the federal government. Its basic idea is to have an extra-curricular program for highly motivated students in *Sekundarstufe II* (age 15/16 to 18/19) during the summer holidays. The academies each last 16 days and consist of a maximum of 6 courses with topics from different scientific disciplines (Deutsche SchülerAkademie 2012, see also Györi and Nagy 2012). Every year, about 1,000 talented students take part.

The DJA program was developed as a spin-off for younger children in 2003. It is organized regionally and meant for students in *Sekundarstufe I* (from class 7; age 12 to age 15/16). As in DSA, ‘particularly motivated and hard-working young people come together who want to expand their interests and abilities during the holidays’ (Deutsche JuniorAkademien 2014). Both programs are under the patronage of the German president.

There are also other national programs for talented youth, such as *Jugend forscht*¹⁸ which focus on science talents.

Apart from these academies, a tradition of competition exists. National competitions for talented students are held in many areas, including Olympiads in traditional school subjects as well as competitions for composers, writers and inventors, to name a few.

¹⁶ Schloss Hansenberg is based on a public-private partnership between the state of Hessen and (commercial) partners, see www.hansenberg.de. Sankt Afra claims to be the first publicly funded school of its kind. See www.sankt-afra.de/landesgymnasium-sachsen.html for more information.

¹⁷ More info can be found at tumkolleg.ovtg.de (German only).

¹⁸ See www.jugend-forscht.de

Most of the academies and competitions are supported by the federal ministry of Education.¹⁹ The ministry subsidizes the non-profit organization *Bildung und Begabung*, which organizes many of the events mentioned above. *Bildung und Begabung* presents itself as ‘the focal point’ for talent development in Germany, supporting around a quarter of a million talented young people per year.²⁰

On a side note: attention for gifted and talented children and youngsters has also found its way into teacher education and psychology programs. At least four special courses are available (See iPEGE 2010 for details²¹). Research on education of high ability students is carried out in different universities,²² most notably the International Centre for the Study of Giftedness (ICBF) at the University of Münster.²³

12.2.2 *Individual Support from Foundations*

While the federal government has focused on talent support in primary and secondary education since the 1990s, it has also started to focus on financial support for individual talented students in higher education since 2005. By now, it has built up an elaborate infrastructure to this end (BMBF 2013c). However, most of the financial support is indirect. The ministry helps to coordinate the efforts of different private (non-profit) foundations that offer support to talented students in the form of scholarships. In the StipendiumPlus team, 12 organizations are working together, each offering ‘support to students and young researchers with special talents’ (StipendiumPlus 2014). Many of these organizations have existed for decades, but are now part of one team and have decided to offer the same amounts of financial support to all accepted students. The team includes ideologically neutral organizations as well as others that are more politically associated, denomination-based or are run by the unions or employers’ associations. They have established common rules and aims in coordination with the federal ministry and work with the motto ‘Diversity in Unity’ (ibid, see also BMBF 2013b²⁴).

¹⁹ More info can be found at www.bundeswettbewerbe.de/startseite. See also Nagy and Györi 2011.

²⁰ See www.bildung-und-begabung.de/ueber-bildung-und-begabung/ueber-uns for more info (German only).

²¹ The four described courses are ‘Specialist in Gifted Education’ (ECHA) at the Internationales Centrum für Begabungsforschung, and the Master programs ‘Psychology of Excellence in Business and Education’ at LU München, ‘Bildungswissenschaft’ at Pädagogischen Hochschule Karlsruhe and ‘Begabungsforschung und Kompetenzentwicklung’ at the University of Leipzig.

²² Ziegler et al. 2013 provide an overview of research initiatives and topics, although these are mostly focused on gifted education in primary and secondary education.

²³ See www.icbf.de/en/ for more information.

²⁴ Their funding programs target German students as well as EU students and other international students who are entitled to permanent residence in Germany. The rules are laid down in a document by the federal ministry, BMBF 2013b.

At the end of secondary school, there are different possibilities for excellent students to apply for grants to support their university studies. Through one website (stipendiumplus.de) students can find all foundations offering scholarships and choose where to apply. For most of these grants, applications can already be made before entering the university.

Depending on the chosen foundation, a student accepted into the stipendium program ‘either receives “only” scholarship, or he is granted a scholarship and a special development opportunity. Generally, that involves studying in a group in which the student is assisted by an older student mentor and familiarizes himself with the educational institution, meets contemporaries with similar interests, and attends various events and scientific conferences’ (Nagy and Györi 2011, p. 81; see also Grosch 2013).²⁵ Each year, around 25,000 students and 5,000 Ph.D. students are supported by these foundations (BMBF 2013c). This amounts to approximately 2 % of all university students. From 1998 to 2012, the amounts involved in these grants rose from around 50 million euros to 175 million euros per year.

In addition, there is also the public-private Germany Scholarship (Deutschland Stipendium). This award, introduced in 2011, ‘provides financial and non-material support to high-achieving and committed students from all over the world. Modeled after the principle of public-private partnership, businesses, foundations or private individuals sponsor young talent with a pledge of 150 euros per month. The Federal Government matches this amount with another 150 euros’ (BMBF 2013a). These scholarships are awarded by the universities, which also set the criteria. ‘In addition to academic achievement, the criteria for selecting scholarship recipients include social commitment and personal achievements, such as a student overcoming challenges or obstacles in his or her social or family background’ (*ibid*). This grant is thus not only used as talent development tool, but also as an emancipatory measure. In 2012, almost 14,000 students were supported.

In addition to these government-supported or -coordinated programs, there are many more grant opportunities available to excellent students, either from other foundations or specific to a university or field of studies. In some cases, the foundations supplying grants also present their students with extra courses, network meetings and other forms of support, or the grants are specifically meant to follow studies abroad (see for some examples Baumgartner 2014). In short, financially and on an individual basis, talented students in Germany have many opportunities to apply for (financial) support (Box 12.5). However, selection is competitive: out of the approximately 1.7 million university students in Germany,²⁶ around 40,000 (just under 2.5 %) qualify for support from one of the organizations in StipendiumPlus or the Deutschland Stipendium.

²⁵ An example is the Max Weber program in Bavaria, which will be described under the Elite Network of Bavaria below.

²⁶ See Appendix 1 for a list of student numbers at all universities.

Box 12.5: Key Players in Excellence

The main institutions involved in excellence in education are:

- The Standing Conference of the Ministers of Education and Cultural Affairs (KMK)
- The individual ministries of education for the Bundesländer
- German Rector's Conference (HRK)
- German Council of Science and Humanities (*Wissenschaftsrat*)
- *Bildung und Begabung*, organizer of Deutsche SchülerAkademie and Deutsche JuniorAkademie
- StipendiumPlus, private foundations supporting talents working together
- Elite Network of Bavaria (front runner in development of honors programs)

12.2.3 Excellence Initiative

The German culture towards excellence has also been influenced by another very relevant development, the 'Excellence Initiative' (*Exzellenzinitiative*). In 2005, the federal government decided to organize a competition 'to sustainably strengthen research at Germany's universities and to raise the visibility of German science and research vis-à-vis our international competitors' (Deutsche Forschungsgemeinschaft 2014). This was a radical turn of policy, which prompted a lot of discussion. According to DFG – the largest independent research funding organization in Germany and one of the organizers of the competition – it meant a departure 'from a long-cherished – and fatally wrong – conception that all universities are equal and hence should be treated equally. Instead, the Excellence Initiative pursued a path of inequality and of funding elites' (ibid).

In two rounds of competition, allocation of funds was made. Funding was in three categories: for excellent Graduate Schools to promote young researchers, Clusters of Excellence to promote top-level research and Institutional Strategies to strengthen the institution and its research setting as a whole. The first and second rounds in 2006 and 2007 resulted in the appointment of nine 'excellent universities'. This received a lot of attention in the media. In June 2012, funding decisions for the third and final round of the Excellence Initiative were made. The committee selected 45 graduate schools and 43 clusters of excellence, as well as 11 excellent universities (partly the same universities as before) (BMBF 2012). The Excellence Initiative has been very important for promoting a positive cultural shift towards excellence in Germany. The Initiative has brought the concept of excellence to the university system, generated a lot of attention, stimulated research and led to a culture change of affirming excellence in the universities, which are now more focused on competition (Wissenschaftsrat 2010, p. 12). According to the influential German Council of Science and Humanities (*Wissenschaftsrat*), this new focus

should also influence the overall university structure. In a 2010 report, the Council recommended more flexibility in the university system.²⁷

12.2.4 *Excellence in Higher Education*

We have now seen three developments that are relevant for the culture towards excellence in German higher education. First, there is an extensive infrastructure for children in primary and secondary school, mostly organized in academies and competitions outside the school system. Second, a large number of individual stipends or grants are available to talented students in higher education. Third, the Excellence Initiative has brought the concept of excellence to the university system. What does this mean for excellence in higher education?

In higher education, development of special programs for excellent students is still limited. As said before, a regulation regarding honors programs was set in 2003, stating that awarding bachelor qualifications with the addition 'Honours' is not possible (KMK 2010). The exact reason for this regulation is not known, but it might be more related to practical reasons than to a specific view towards the development of excellence programs.

The bachelor diploma was unknown in Germany until the start of the Bologna Process. When the KMK made regulations about bachelor diplomas in 2003, it wanted to avoid confusion. It is still unusual to enter the labor market with 'just' a bachelor diploma, as the diploma is not very prestigious in general, and the addition 'with honors' might in fact only lead to confusion with the term 'honorary'.²⁸ This has led some universities to be cautious with the development of special provisions for talented students, and especially with calling them honors programs. However, other universities did not see this as a problem and worked around the legal restrictions by awarding special additional diplomas for participation in such programs. The fact that the term 'honors' is not easily used in Germany was also problematic for us when searching for these programs (Box 12.6).

Box 12.6: Local Terminology

The term honors is used in Germany, but not very common (possibly due to the legal restrictions). Local terms used for excellence programs include:

- *Exzellenzprogramm* (excellence program)
- *Talenteprogramm* (talent program)
- *Elitestudiengang* (elite study path)
- High Potential program
- *Exzellenzförderung/Begabtenförderung* (promotion of excellence/giftedness)

²⁷ In the report, it explicitly names the Dutch University College Utrecht and the University of Maastricht as examples of differentiation within the university system.

²⁸ Personal communication from Stephan Bedke at Elite Network of Bavaria, April 2014. See interview in Appendix 4 for more details.

12.3 New Developments

It has become more common to talk about elite, excellence and talent in Germany over the last few years. This has been institutionalized since the start of the Excellence Initiative, which can be seen as a culture change. Also, individual financial support is made available widely, but the development of honors programs is still limited. How this will develop in the coming years, is hard to say. An important question is what will come after the Excellence Initiative, when this program finishes in 2017.

One other development deserves mentioning. In recent years, both companies and students themselves have started to form online communities and organizations focusing on providing opportunities to excellent students. An example is e-fellows.net, which aims to ‘foster talented students by offering the first online scholarships in Europe. Through these scholarships, e-fellows.net supports the highest qualified and talented university students by offering services and creating a unique network for their studies and career’.²⁹ The network was founded in 2000 by three large companies and is sponsored by many more. Recently, the Austrian students4excellence program, which had a somewhat similar approach, was incorporated into e-fellows.net. These networks may play an even larger role for excellent students in the future, especially if initiatives are not taken by universities themselves.

12.4 Honors Programs per University

Germany has a rich university landscape. In total, there are 110 research universities with an added total of about 1.7 million students. A full list of all German research universities that were contacted and their replies can be found in Appendix 1. Eventually 107 out of 110 universities responded, three did not provide an answer.³⁰ The resulting list of programs was then compared with preliminary findings for an overview prepared by TU München master student Raphaela Baumgartner, who kindly provided her findings to us (Baumgartner 2014). She managed to find more programs and the extra programs were added to the list.³¹ In all, 17 universities with

²⁹ See www.e-fellows.net/UeBER-UNS/About-us

³⁰ Most of this work has been carried out by Utrecht University honors students Margit Ruis, Floris van Rees, Nico Brinkel and Florian Sloots.

³¹ The different results from Baumgartner’s and our own research shows that in some cases, information about programs for excellent students is not spread throughout the HEI, as at least one HEI where Baumgartner managed to find an honors program answered ‘no’ on our question if they had a program according to our definition. Possibly this is related to our use of the term ‘honors’, which is not widely used in Germany and in fact might scare off HEIs who are aware of the KMK regulation forbidding bachelor degrees with the addition ‘honours’. We would like to thank Raphaela Baumgartner and her supervisor Dr. Jutta Möhringer for sharing information with us.



Map 12.1 German universities with honors programs, 2014

honors programs according to the definition in Chap. 2 were identified, with some running more than one program. They are shown on Map 12.1 and in Table 12.1.

The universities with honors programs are not distributed evenly over the country; eight of them are in Bavaria. Here, universities have a joint program through the Elite Network of Bavaria (*Elitenetzwerk Bayern*). This network and all of its programs will be discussed together. Apart from the Elitenetzwerk, there are also other provisions for excellent students in Bavaria, such as the Bayerische Elite Akademie, which is organized outside the university system and takes place during

Table 12.1 Honors programs at German universities

University (state)	No. of students (whole institute) ^a	Honors form	Name of program
<i>Niedersachsen</i>			
Leuphana University Lüneburg	8,151	Multidisciplinary	Studium Individuale
University of Oldenburg	12,269	Disciplinary	Honours-Programm Niederlandistik
<i>Hamburg</i>			
TUHH	6,584	Disciplinary	GES_Plus
<i>Baden-Württemberg</i>			
University of Freiburg	24,157	Multidisciplinary	University College Freiburg
University of Ulm	9,846	Disciplinary/interdisciplinary	Eliteförderung
<i>Rheinland-Pfalz</i>			
WHU Otto Beisheim School of Management	990	Disciplinary	Bachelor in International BWL/Management
<i>North Rhine-Westphalia</i>			
University of Bonn	31,878	Interdisciplinary	Bonner Honors Program
University of Paderborn	19,312	Disciplinary/interdisciplinary	Exzellenzprogramm, Eliteförderprogramm EIM
<i>Saarland</i>			
Saarland University	17,800	Disciplinary	Bachelor-Förderprogramm
<i>Bavaria</i>			
Ludwig Maximilians Universität München	47,959	Interdisciplinary	Elite Network Bavaria
University of Erlangen-Nürnberg	36,610	Interdisciplinary	Elite Network Bavaria
Technische Universität München	35,761	Interdisciplinary	Elite Network Bavaria, Junge Akademie, best.in.tum
University of Würzburg	26,577	Interdisciplinary	Elite Network Bavaria
University of Regensburg	20,482	Interdisciplinary	Elite Network Bavaria (with bachelor entry)
University of Augsburg	19,096	Interdisciplinary	Elite Network Bavaria
University of Bayreuth	12,520	Interdisciplinary	Elite Network Bavaria
Katholische Universität Eichstätt – Ingolstadt	5,171	Interdisciplinary	Elite Network Bavaria

^aSource: Statistisches Bundesamt (2014, pp. 31–33)

the semester breaks of three subsequent semesters.³² Generally speaking, the promotion of talent development can differ per state, as the Bundesländer all set their own rules and policies in education.

The programs that were found at the universities are very diverse, varying from small disciplinary programs aimed at deepening knowledge, to large interdisciplinary programs offered university-wide. There are also two full multidisciplinary bachelor programs for selected students, in Lüneburg and Freiburg. While both are based on the Liberal Arts and Sciences model, they each take a different approach. In the relatively small Leuphana university Lüneburg focus is on the individual student, who can choose his/her own program from existing courses, as is further described below. In the larger university of Freiburg, the ‘Dutch University College model’ is followed, bringing all students together in one multidisciplinary environment and on one campus. The group focus (bringing excellent students together) as found in Freiburg is rare in the German context, where focus is mostly on the individual student. This is in line with the more general strategy of supporting individual talented students with grants and stipends. More information about grant and stipend programs for talented students, as well as a more detailed overview of existing programs to support the more able ones can be found in Baumgartner’s thesis (2014). She also shows a number of fast track promotion programs, aimed at attracting the best students to a fast Ph.D. program, already starting the program in their master phase.

Two situations illustrate our choices what to include and not to include as honors education.

The first is the situation of a private (but state-recognized) university, which operates a strict selection process for all its programs. An example is Jacobs University in Bremen. Here, admission requirements set for all programs are very high and include GPA, an essay, teacher recommendations and SAT scores. However, the university offers regular programs and does not have special honors tracks and is therefore not included on our list below.

The second situation concerns universities saying that they do have a special educational offer for individual talented students, but no official program. For example, the Ruhr University Bochum promotes study for ‘talented bachelor students who wish to do more than the regular study programs, have the possibility to achieve thirty additional credit points within the regular BA of 180 credit points in order to get an additional certificate’.³³ As this is not an official program, it is not included on the list below.

³²More info can be found at www.eliteakademie.de

³³Personal communication from Monika Sprung, Director International Office Ruhr University Bochum, April 2014. See also www.ruhr-uni-bochum.de/universitaet/pdf/RUB-Hochschulentwicklungsplan2014-2019.pdf (page 14).

Universities with honors programs according to our definition are shown in Table 12.1, ordered by state. A full list of universities can be found in Appendix 1.

We now move to our discussion of individual honors programs that were found in German universities, using the federal ministry's list of 110 public and private universities (see Appendix 1) as a basis.

12.4.1 *Leuphana University Lüneburg*

In October 2012, three directors of the Leuphana University Lüneburg decided to create the Studium Individuale program, based on the American Liberal Arts and Sciences system. It allows students to choose all the courses in their curriculum, ignoring disciplinary borders. The main goal involves teaching students to look at issues from different perspectives and find solutions to complex issues. The program is meant for motivated students wishing to create their own profile for the labour market. Every year 35 students are selected. Selection is based on additional activities students have performed in the past (showing for example leadership qualities or community service), a written test and an interview. Accepted students follow courses at different majors based on their individual objectives. During the first semester the students develop their knowledge on the fundaments of science. In the second semester the students choose 1 of the 13 minors (the Studium Individuale program itself is considered their major). After that, the students follow 15 modules, in which they can discover different disciplines. They end the program with a bachelor thesis and an oral exam. At the end of their studies the students receive a Studium Individuale bachelor certificate. This grants access to different master courses, based on the courses the student has followed (Table 12.2).

Table 12.2 Leuphana University Lüneburg – Studium Individuale

<i>Organizing institution</i>	Leuphana University Lüneburg
<i>Form</i>	Multidisciplinary full bachelor program
<i>Target group</i>	Bachelor students
<i>Admission</i>	Selection based on CV, test and interview
<i>Description</i>	Individualised full bachelor program for selected excellent students, based on Liberal Arts and Sciences model
<i>Founded</i>	October 2012
<i>Participants</i>	Maximum of 35 per year
<i>Website</i>	www.leuphana.de/bachelor-studium-individuale.html

Table 12.3 University of Oldenburg – Honours-Programm der Niederlandistik

<i>Organizing institution</i>	School of Linguistics and Cultural Studies at the University of Oldenburg
<i>Form</i>	Disciplinary program
<i>Target group</i>	Second year bachelor students
<i>Admission</i>	Invitation, based on grades
<i>Description</i>	Top students get invited to a program where they deepen their knowledge and improve their reflective and analytical skills
<i>Founded</i>	Winter semester 2009/2010
<i>Participants</i>	Maximum of 8 per year
<i>Website</i>	None

12.4.2 University of Oldenburg

The goals of the Honours-Programm der Niederlandistik are to provide students a deeper insight in the content of the bachelor program, to motivate the students for the master program, to develop the student's reflective and analytic skills and to create a platform where motivated students can meet. Every year a maximum of eight students are admitted into the program. Students with excellent grades in the first year get invited in a personal letter. The students then decide if they want to accept this invitation. The program takes two semesters. Several events are organized where students and teachers meet. After a kick-off event, students follow four lectures per semester. Half of these focus on linguistics and half on literature. The topic of a final lecture is based upon the wishes of the students. Besides, the students get mentored by faculty to help them with their academic progress. The program ends with an informal event, such as an excursion or a dinner, in which students receive a certificate (Table 12.3). More info in the interview with student Laura Peters in Box 12.7.³⁴

12.4.3 Technical University Hamburg-Harburg

The GES_Plus program was started to promote the international image of the university and the city of Hamburg. It is designed for top students interested in spending time at a university abroad and complete an internship during their bachelor program. The regular General Engineering Science program has a large interdisciplinary aspect. Students participating in the GES_Plus program receive the opportunity to focus on a certain specialization during their stay abroad. The program takes 4 years, 1 year longer than the regular program. Students can apply at the start of their second bachelor year. Selection is made based on motivation, language skills, grades and finally an interview.

³⁴This interview was conducted by Nico Brinkel.

Box 12.7: 'Teachers Spend Extra Time on You'

Interview Laura Peters, student in Honours-Programm der Niederlandistik since summer 2013.

Why did you decide to join the program after you received the invitation?

'In the first place I felt honored I was invited and that they selected me. Secondly (...) this seemed like a good opportunity to learn more about Dutch. Also I find it interesting to learn more about the research the teachers conduct, because during the regular program we do not really get an impression. I think I have a much better overview now. It is very interesting.'

How do you like it so far?

'It is really nice. The department of Dutch is already a small department with much interaction, but with the honors program the teachers spend extra time on you. There is also more room to talk with the teachers and get to know them, and because of the honors program you start to realize the teachers are personally interested in the students.'

Do you know any other honors programs?

'No, I have never heard of other programs and I think this program is unique in Germany. When our teacher told about it, this was new to everyone and it immediately sounded very interesting. We do of course know study programs with tough selection, but I know nothing similar to this.'

How do people in Germany look towards excellence? Do you think it is undervalued?

'I noticed that at my former school, the teachers always focussed on the students that have problems. This is still mostly the case at the university, so I think the German culture is mostly focussed on the weaker students. For the good students there is less attention. This is also what the teacher of the honors program told me. She found it weird that this focus was always on the weaker students, so to change this attitude she decided to start the honors program.'

Before the selected students leave for their chosen destination, they complete courses in language and the culture of their destination. Then they go to a partner university abroad where they focus on their specialization. The second semester of this year is spent on an industrial internship in a company in the same country. Graduates receive a special diploma, besides their regular diploma. The program is supposed to enable participants to choose a wider range of master programs and qualify them for master programs at top universities abroad (Table 12.4).

Table 12.4 Technical University Hamburg-Harburg – GES_Plus

<i>Organizing institution</i>	General Engineering Science bachelor program at Technical University Hamburg-Harburg
<i>Form</i>	Disciplinary program
<i>Target group</i>	Second-year bachelor students
<i>Admission</i>	Based on grades, language skills, motivation and interview
<i>Description</i>	Top students get the opportunity to study abroad and do an internship there
<i>Founded</i>	2012
<i>Participants</i>	Around 7 per year
<i>Website</i>	www.tuhh.de/alt/tuhh/education/degree-courses/bachelors-programs/ges-plus.html

Table 12.5 University College Freiburg

<i>Organizing institution</i>	University of Freiburg
<i>Form</i>	Multidisciplinary full bachelor program
<i>Target group</i>	Bachelor students
<i>Admission</i>	Based on grades, language skills, motivation and interview
<i>Description</i>	Full English-language bachelor program in Liberal Arts and Sciences for selected excellent students
<i>Founded</i>	2012
<i>Participants</i>	160 (total in 2013/2014)
<i>Website</i>	www.ucf.uni-freiburg.de

12.4.4 University of Freiburg

The University of Freiburg started with a Liberal Arts and Sciences program organized in a special College in October 2012, as the first of its kind in Germany. Selection is competitive and based on grades, a study-orientation-test, CV, English proficiency, a motivation letter and finally an interview.

The program in the University College Freiburg consists of courses in four study areas: the Core, the Language, the Major and Electives. In the Core all students are intensively trained in general academic skills. The Language part ensures that all students can communicate on academic topics in excellent English and good German, and ideally acquire a good grounding in a third language. In the Major students specialize in a specific academic field. The program aims to provide sufficient depth to make admission into disciplinary master programs possible. The Electives area enables students to either pursue interdisciplinary studies of their choice, engage in more practically oriented projects or undertake specific additional training necessary for admission into their chosen master program (Table 12.5).

Table 12.6 University of Ulm – Eliteförderung

<i>Organizing institution</i>	University of Ulm
<i>Form</i>	Mono- and interdisciplinary program
<i>Target group</i>	Bachelor students
<i>Admission</i>	Invitation plus selection based on grades and motivation
<i>Description</i>	Individualised program which challenges students and gives them the opportunity to develop themselves, to work interdisciplinary and get acquainted with doing research
<i>Founded</i>	2011 (general), different per program with a specific subject
<i>Participants</i>	Unknown
<i>Website</i>	www.uni-ulm.de/studium/individuelle-studienmodelle/elitefoerderung.html

12.4.5 University of Ulm

The University of Ulm works according to a system of interdisciplinary and cooperative working methods, taking shape in individual study models for all students. One of the models, called “Eliteförderung”, focuses on students who want extra challenges. The total number of students participating in the Eliteförderung was unavailable to us, but in medicine, for example, 100 students take part. Educational forms, content of the programs and selection criteria also differ per discipline.

The best students are offered individual possibilities to do courses at a more advanced level. The starting point is disciplinary, but students are also encouraged to gain interdisciplinary depth, for example by joining an interdisciplinary research team for a specific project. The best 3 % of students are invited, but students can also apply by sending their CV and a motivation letter. Selection mostly depends on motivation and grades. When students successfully complete the program, they receive a certificate (Table 12.6).

12.4.6 WHU – Otto Beisheim School of Management

The WHU – Otto Beisheim School of Management is a private university, offering a study program in Business Administration. Besides, an intensive version of this undergraduate program called Bachelor in International Business Administration is also offered. In the 3-year program 210 credits instead of the regular 180 can be earned. Students spend five semesters at WHU Otto Beisheim School of Management, one semester abroad and do two summer internships, at least one of which must be completed abroad. To apply, students must send a motivation letter, CV, grades, proof of very good English skills, two letters of recommendation and proof of an apprenticeship of at least 6 weeks, or equivalent practical experience. The final round of the application process consists of an interview, a presentation on a topic

Table 12.7 WHU Otto Beisheim School of Management – Bachelor in International Business Administration

<i>Organizing institution</i>	WHU Otto Beisheim School of Management, Vallendar
<i>Form</i>	Interdisciplinary bachelor program
<i>Target group</i>	Bachelor students
<i>Admission</i>	Selection based on grades, motivation and language skills
<i>Description</i>	This honors program is a more challenging version of the regular bachelor, for students with broad interests
<i>Founded</i>	1984
<i>Participants</i>	44 (total)
<i>Website</i>	www.whu.edu/programme/bachelor-in-internationaler-bwl-management-bsc/

Table 12.8 Bonn University – Bonner Honors Program

<i>Organizing institution</i>	Bonn University
<i>Form</i>	Interdisciplinary program
<i>Target group</i>	Bachelor students, from third semester
<i>Admission</i>	Selection made by faculties, based on grades
<i>Description</i>	A special interdisciplinary program offered on top of the normal curriculum for talented students, consisting of different elements
<i>Founded</i>	2013
<i>Participants</i>	250 (total)
<i>Website</i>	www3.uni-bonn.de/research/portal-for-doctoral-and-postdoctoral-researchers/doctoral-studies-in-bonn/honors-program-for-ba-students-1?set_language=en

of choice given by the candidate, a group discussion and an analytical test. Students successfully completing the program receive a bachelor degree and a certificate of business law (Table 12.7).

12.4.7 Bonn University

The goal of the university-wide program at Bonn University, founded in 2013, is early identification and individualized support for students who are especially talented. All bachelor students can apply and are selected based on criteria set by their major program of study. The Bonner Honors Program has four components: a mandatory part for all honors students regardless of their major, including courses on general scientific theory; an elective module at a different major; a 1-week summer school; and participation and discussion at an honors lecture by an outstanding scholar. Upon successful completion, students receive a special certificate, listing classes and grades with a description of the program (Table 12.8).

12.4.8 University of Paderborn

Two departments at the University of Paderborn each offer a special program to excellent students. The first is the Exzellenzprogramm in the department of economic sciences (Wirtschaftswissenschaft or WiWi). Focus in this program is on the ‘excellence seminar’, an extra individual course a student can choose. Progress is discussed in groups and in the ‘community of excellence’ network. The second program is in the department of electrical engineering, computer science and mathematics and is called the Eliteförderprogramm EIM. The focus here is on community, from which several activities are organized including seminars and excursions. Participation in research activities forms an important element (Tables 12.9 and 12.10).

12.4.9 Saarland University

The basic idea in this program, for both bachelor and master students, at Saarland University is that each student has a professor who will guide her/him through the course of study and will function as mentor and academic advisor. At least once a

Table 12.9 University of Paderborn – Exzellenzprogramm

<i>Organizing institution</i>	University of Paderborn, Department of Economic Sciences
<i>Form</i>	Disciplinary program
<i>Target group</i>	Bachelor students from second year
<i>Admission</i>	Selection based on grades and motivation letter
<i>Description</i>	Students form a community and choose their individual seminar, on which they work during a semester. The program ends with a presentation
<i>Founded</i>	Unknown
<i>Participants</i>	Unknown
<i>Website</i>	wiwi.uni-paderborn.de/studierende/erfolgreich-studieren/studium-individuell-gestalten/exzellenzprogramm/

Table 12.10 University of Paderborn – Eliteförderprogramm EIM

<i>Organizing institution</i>	University of Paderborn, Department of electrical engineering, computer science and mathematics
<i>Form</i>	Interdisciplinary program
<i>Target group</i>	Bachelor students from second year and master students
<i>Admission</i>	Invitation to make application sent to all students, target group is best 10 %. Application followed by interview with two professors and presentation
<i>Description</i>	Participants form a community undertaking various activities and participating in departmental research projects. Successful participants receive a special certificate
<i>Founded</i>	2007
<i>Participants</i>	Unknown
<i>Website</i>	www.eim.uni-paderborn.de/lehre/elitefoerderung.html

Table 12.11 Saarland University – Bachelor-Förderprogramm and Master-Förderprogramm

<i>Organizing institution</i>	Saarland University, Department of Computer Sciences
<i>Form</i>	Disciplinary program
<i>Target group</i>	Bachelor students from second semester, master students
<i>Admission</i>	Selection based on invitation and grades
<i>Description</i>	Individual counselling by a professor and special tutorials for honours students to enable networking
<i>Founded</i>	Unknown
<i>Participants</i>	Unknown
<i>Website</i>	www.cs.uni-saarland.de/index.php?id=138&L=0 (master)

semester the professor and student meet to talk about the current status of the individual student's studies and the plans for the next semester. Each semester there will also be at least one special tutorial for all students in the program, where advanced topics are discussed. The aim is to enable participants of the program not only to finish their studies more quickly with excellent results, but also to get to know other excellent fellow students. After the first bachelor semester the students with best grades are nominated by professors. Others can apply themselves. In the master program, application is based on grades (Table 12.11).

12.4.10 University of Regensburg

The University of Regensburg takes part in the Elite Network of Bavaria (described below) and offers an Elite Graduate Program. The situation at Regensburg University is somewhat special, because an additional Honors Program is also offered to bachelor students. They can take part in some of the courses, co-curricular projects and lectures that are normally reserved to master students in the Elite Graduate Program (although they will not get any degree credit). The bachelor Honors Program consists of an Honors-Seminar, Honors-Project, mandatory internship and excursions, lectures and workshops. Additionally, it offers courses in soft skills and method training. Mentoring by professors and industry partners, also offered in the Elite Graduate Program at master level (described under the Elite Network of Bavaria below), is available to the bachelor students (Table 12.12).

12.4.11 Technical University Munich (TUM)

The Technical University Munich has a number of programs to promote excellence. It participates in the Elite Network of Bavaria (see below), it cooperates with secondary schools (TUMKolleg, see above) and it has two more programs aimed at excellent students. The university-wide program Junge Akademie is built around

Table 12.12 University of Regensburg – Honors Elite Programme

<i>Organizing institution</i>	University of Regensburg – Faculty of Business, Economics and Management Information Systems
<i>Form</i>	Interdisciplinary program
<i>Target group</i>	Master students (but bachelor students can take part from fourth semester)
<i>Admission</i>	Selection based on grades, motivation, CV and interview
<i>Description</i>	Co-curricular program with different components, aimed to deepen students' knowledge
<i>Founded</i>	2003
<i>Participants</i>	21 (total)
<i>Website</i>	www.honors.de

Table 12.13 Technical University Munich (TUM) – Junge Akademie

<i>Organizing institution</i>	Technical University Munich (TUM)
<i>Form</i>	Interdisciplinary program
<i>Target group</i>	Bachelor and master students
<i>Admission</i>	Students must be nominated by a dean and/or recommended by a professor. Selection is then based on grades, letter of motivation, CV, project idea and interview
<i>Description</i>	Interdisciplinary network of students and faculty, where new members focus on a 1-year group project and can later take on other tasks
<i>Founded</i>	2010
<i>Participants</i>	Unknown
<i>Website</i>	www.jungeakademie.tum.de

the concept of community. Students can join and in their first year they work in a team on a self-chosen project. In later years they can take on other tasks. The best. in.tum program is specific to the Department of Informatics and meant for the best 2 % of students. It includes special courses. In both cases, participation is by invitation or recommendation from staff. More information can be found in Baumgartner 2014 (Tables 12.13 and 12.14).

12.4.12 Elite Network of Bavaria

The state of Bavaria has a long tradition of supporting excellent students.³⁵ ‘In 1966, the Bavarian state government started giving out state scholarships for the highly gifted by passing the Bavarian Gifted Student Legislation’ (Elite Network

³⁵The current Elite Network of Bavaria even traces its beginnings back to 1852, ‘when King Maximilian II of Bavaria founded the institution “Maximilianeum” which still exists today and’

Table 12.14 Technical University Munich (TUM) – best.in.tum

<i>Organizing institution</i>	Technical University Munich (TUM), Department of Informatics
<i>Form</i>	Disciplinary program
<i>Target group</i>	Bachelor students, from third term
<i>Admission</i>	By invitation, based on study performance or particular contributions to the department
<i>Description</i>	Extra support and assignment to chair, special courses called ‘pearls of informatics’ and certificate which states that student belongs to the best two percent of the department
<i>Founded</i>	Unknown
<i>Participants</i>	Unknown
<i>Website</i>	www.in.tum.de/en/current-students/advising-and-support/mentoring-and-support-programs/foerderprogrammen-der-tum/promotion-of-outstanding-students-at-the-tum.html

of Bavaria 2014). In the early 2000s, Bavaria felt it had to act to keep its position in the globalizing labor market. The current Elite Network of Bavaria started in 2002 as an initiative ‘to identify and support the most promising talents at the Bavarian universities in the best way possible’ (ibid; see also Bayerisches Staatsministerium für Wissenschaft, Forschung und Kunst 2006). The overall aim is to get highly qualified and motivated students and graduates from across the globe on board for research projects in Bavaria. It consists of five complementary programs, starting at secondary school examinations and continuing until post-doc level. Two programs are relevant for bachelor and master students: The Max Weber-Program which is an individual scholarship program for bachelor and master students, and the Elite Graduate Program which offers full honors master programs to selected students.³⁶

In the Max Weber-Program, two elements are central. First, the offering of academic support and network and second, financial support.

For all participants, events are aimed at both deepening studies and promoting interdisciplinary dialogue. The academic events are complemented by job-related events. A second central element involves financial support: every member receives an allowance of € 900 per semester and is entitled to financial aid for studies or projects abroad. Students with the best grades can apply for the program around the time of their secondary school examinations. They will then have to take an extra exam. Those who pass may be accepted into the program. Otherwise, students can still enter at later stages. Around 1,800 students per year take part in the program.³⁷

which aims at enabling the highly-gifted Bavarian secondary school graduates to fully concentrate on their academic work at a Munich university’ (Elite Network of Bavaria 2014).

³⁶The other three programs are International Doctorate Programs, Research Scholarships and International Junior Research Groups. More information about the background and development of the Elite Network Bavaria can be found in the interview with Stephan Bedke in Appendix 4.

³⁷Numbers for 2013/2014, taken from www.elitenetzwerk.bayern.de

For excellent master students, Elite Graduate Programs have been established at eight Bavarian universities. These programs ‘are designed to stimulate top academic performances of outstanding students, and simultaneously develop open-minded and upright personalities who, after their graduation, are prepared to take on extraordinary challenges in academic research or leading positions in the professional world’ (Elite Network of Bavaria 2014). The programs are organized as full master degree programs and are established as an alternative option to already existing courses. Programs are funded by the Bavarian State Ministry of Education, Science and the Arts for a maximum of two funding periods of 10 years altogether. After that time, they may continue at their own expense, while the network still guarantees the quality. Characteristics of all programs include an intensive tutoring system (details vary per university), a high level of internationalization, special extra-curricular courses towards personality development, targeted introduction of the students to academic research and into a strong interdisciplinary network across numerous universities.

In early 2014, there are 20 Elite Graduate programs. In total, around 1,000 students are enrolled. Each program has its own admission procedure, but generally speaking excellent marks in secondary school and in a bachelor program in a relevant field are necessary as well as a motivation letter and CV. Below, the specifics of each program are worked out in more detail. As most programs are run by more than one university, descriptions below are ordered by fields of study and then alphabetically, according to the title of the program in German.

12.4.12.1 Humanities, Social Sciences and Economics

(a) Art and Visual Culture Discourses from a Historical Perspective/Aisthesis

(Eichstätt, Augsburg, LMU Munich)

The program, founded in 2006, focuses on cultural and literary sciences in an international and interdisciplinary way. It enables students to connect with universities, research-institutions and museums. Admission is dependent upon knowledge of two cultural languages and willingness to learn another and an admission test in the form of an exercise. Fifteen students started in 2013–2014, and nine the year before. See interview with student Alice Hatebur in Box 12.8³⁸ for more details.

(b) Ethics of Textual Cultures

(Augsburg, Erlangen)

This modular four-semester program is interdisciplinary, with the underlying view that ethical judgments can be grasped only if they appear in the form of concrete texts.

³⁸This interview was conducted by Florian Sloots.

Box 12.8: 'A Great Opportunity'

Alice Hatebur studies in the Aisthesis Elite Master program at the University of Eichstätt. She holds a Bachelor in History of Art and Italian, started the Elite Master in September 2012 and spent one semester at the University of Florence.

What is the content of the program?

'Every Monday we have three or four hours of theoretical lessons in history of art, but also in literature. We have a professor for three weeks and then we have an exam, and after that a new professor. (...) The Monday course is really the core of the program. For this we have to read, read and read... But it is a very nice thing, we have the opportunity to work together with amazing professors.'

Do you think this program gives you better opportunities for your career?

'On the one hand, yes. The program is located in four different cities, we have a group of 40 to 60 professors and we are just nine students. That is a great opportunity. In my CV they can see that I have studied at five different universities during my master's program, which is interesting. On the other hand, when I was looking for a random student job, first I wrote all of these qualifications on my CV, but no one hired me. Then someone gave me the advice; just don't write all the stuff about the elite program, because you are looking for a small job. I shortened my CV and people started to accept my applications.'

How do other people in your direct environment look at the elite program?

'In general they are very proud and positive. Or they make fun of it, like, "here is the elite student". Once I got into a hot discussion. One of my friends has a sixteen-year old son. He told me that in his opinion it's not fair that I get all the advantages. (...) But in general I think most people are positive, they are proud and happy for me.'

(c) Finance & Information Management

(Augsburg, TU Munich)

This program (founded in 2004) prepares for an international business career. Education is based on an interdisciplinary approach. A social project is an integrated part of the curriculum as well as workshops with business partners. Both an individual research project and the master thesis are conducted with a professional partner. Internships are offered between the semesters. Around 25–30 students participate per year.

(d) Honors in Business, Economics, and Information Systems

(Regensburg)

This program, founded in 2003, has 68 participating students. It is also connected to the honors bachelor program, described earlier under University of Regensburg

(Sect. 12.10). The master program includes a stay abroad. ‘Service to the community’ is explicitly mentioned as admission criterion.

(e) East European Studies

(LMU Munich, Regensburg)

The program is meant to give students competence in East European languages, as well as key skills that will enable them to assume responsible positions in the areas of politics and policy, economics, cultural affairs and academia. It includes obligatory internships for students in companies and institutions dealing with Eastern Europe and participation in a specially designed summer school in one of the region’s countries. Admission includes language requirements for German, English and at least one East European language.

12.4.12.2 Natural Sciences

(f) Advanced Materials Science

(TU Munich, LMU Munich, Augsburg)

This program will end and no longer accepts new applications.

(g) Fokus Physik

(Würzburg)

Since 2006, the university of Würzburg offers honors education under the name FOKUS (Forschungs Orientierter Komprimierter UniversitätsStudiengang), a research oriented compressed university degree program. Education occurs in small groups with intense individual support as well as collaboration with internationally renowned research teams. Several Max-Planck-Institutes are involved. The reduction of the period of study is achieved by a reorganization and modularization of the curriculum.

(h) Global Change Ecology

(Bayreuth)

This program, founded in 2006, has around 45 participants. Admission includes the successful passing of a specific aptitude assessment test.

(i) Macromolecular Science

(Bayreuth)

Founded in 2004, this is not a master program as such, but an accompanying elite study program to different study programs. A special degree is awarded to a total number of 57 participants. The admission procedure includes two selection interviews. The program consists of advanced modules, interdisciplinary practical courses, courses for research and writing publications, management training and research abroad.

(j) Physics with Integrated Doctorate Program

(Erlangen-Nuremberg, Regensburg)

This program, founded in 2004, lasts 4.5 years and is different from most programs in the Elite Graduate Program: it starts in the bachelor and leads to a Ph.D. (doctorate) instead of (just) a master. The first three semesters are within the regular bachelor physics program. The very research-oriented program starts in the fourth semester and involves taking part in several research projects. During this phase, the students spend 1 year together at the same university (one semester in Erlangen and one in Regensburg). The internationally oriented doctorate part of the program covers the last 3 years of the program. It includes a master thesis, an intense doctoral studies program with lectures dedicated to special topics of modern physics, study days and international workshops. Furthermore, each student spends several months abroad for scientific research projects.

(k) TopMath – Mathematics with integrated Doctorate Program

(TU Munich, Augsburg)

TopMath aims at the top 3–5 % of all mathematics majors. TopMath aims to lead talented students to a doctoral degree within a total of 6–7 years of studies. It consists of an elite bachelor phase and the doctoral program with parallel honors master. The first 2 years are within the general basic mathematics bachelor program. An increasingly research-oriented phase begins in the third year, with intensive one-to-one supported research sessions gradually replacing regular lectures. It is also possible to directly enter the TopMath doctoral program.

(l) Theoretical and Mathematical Physics

(TU Munich, LMU Munich)

The program provides an interdisciplinary combination of maths and physics. Focus is also on transdisciplinarity, i.e. the transfer of knowledge from one discipline to a related one.

12.4.12.3 Engineering and Computer Sciences**(m) Advanced Materials and Processes**

(Erlangen, Bayreuth, Würzburg)

This international study program, founded in 2005, delivers lectures in English, so a language test is included in the admission requirements. The program consists of three semesters of lectures, soft skills and research projects followed by an industrial internship and a 6-month master project. In total, 145 students have joined since this program began.

(n) Advanced Optical Technologies

(Erlangen)

This interdisciplinary master program, founded in 2007, involves institutions from outside the university, like the Fraunhofer Institute for Integrated Circuits and the Bavarian Laser Centre in Erlangen, which offer additional expertise.

(o) Bavarian Graduate School of Computational Engineering

(TU Munich, Erlangen)

The Bavarian Graduate School of Computational Engineering (BGCE, founded in 2004) can be understood as an umbrella organization for three different master programs.³⁹ All programs strive to involve the students directly in current research projects by extending the project-oriented parts of the program. In addition, block tutorials and summer schools advance the scientific and interpersonal skills of the students.

(p) Software Engineering

(Augsburg, TU Munich, LMU Munich)

The program, founded in 2006, is geared towards the top 2 % of students in computer science and aims to educate an elite. Industrial partners take part and a stay at a partner university abroad is included in the program.

(q) Technology Management

(TU Munich, LMU Munich)

The program is carried out at the Center for Digital Technology and Management (CDTM), a joint institution of TUM and LMU. The program exists in approximately the current form since 2004, but before there was already talent education at CDTM. Around 20 people enroll in the program every semester. The program prepares highly talented students for future leadership positions in the field of high-technology management. Courses are supported by business partners. A stay abroad is part of the program.

12.4.12.4 Life Sciences**(r) Experimental & Clinical Neurosciences**

(Regensburg)

A number of international universities are involved in the program, which began in 2006. The intense program leads to a master degree in 1.5 years. Admission involves an entrance exam. Approximately 20 students enter the program annually.

³⁹Computational Engineering (CE), Computational Mechanics (COME), and Computational Science and Engineering (CSE).

(s) Neuro-Cognitive Psychology

(TU Munich, LMU Munich)

Founded in 2004, the main goal of this program is to provide a state-of-the-art interdisciplinary education in this brain research-oriented discipline of psychology. Cooperation is sought with universities in- and outside Germany for approximately 20 students per year who enter this program.

(t) Neurosciences

(TU Munich, LMU Munich)

Approximately 15 master students per year enter this program, which was founded in 2006. Cooperation is sought with Max-Planck-Institutes and Helmholtz Centers. Admission includes proof of research experience and two separate recommendation letters.

This description of all Elite Master programs in the Elite Network of Bavaria ends our discussion of German honors programs. We have found an interesting variety: from university-wide interdisciplinary programs to small-scale disciplinary programs and from the master programs in the Elite Network of Bavaria to a full American-style honors college in Freiburg. We now move to Germany's southern neighbors, starting with Austria in the next chapter.

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⁴⁰**Note:** Literature used to prepare this book is included on this list. Some of the entries are in local languages and have not been read completely by the researchers. Instead, they have been searched with keywords to retrieve relevant information.

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Chapter 13

Austria: A Rapidly Expanding Higher Education Sector

13.1 Education System

Between 2002 and 2011, the number of Austrians in tertiary education increased by 55 %. (Eurostat 2014)¹

Austrian universities receive more students each year. This is in line with government policy to have a well-educated population, but it also leads to a high drop-out rate and discussion about the future of the university system. In the last decade, Austria's tertiary education participation has gone from well below the EU-27 average to well above this average (Eurostat 2014; BMUKK 2013a)²

One of the reactions to this development is the slow rise of honors programs in higher education in recent years. This is a logical step in the Austrian context, after the development of extensive programs and projects for talented and gifted children in primary and secondary education in earlier years.

Austria – like Germany – is a federal republic consisting of Bundesländer (Box 13.1), but educational matters are significantly more in federal hands than in Germany. While primary and secondary education programs are administered by the Bundesländer, tertiary education is the responsibility of the federal government. The education system is quite stable, as federal legislation on education can only be amended or introduced with a two-thirds majority in parliament (Box 13.2).

Differentiation is made early in the Austrian school system. Primary level is 4 years from age 6. Lower secondary school starts around age 10, also lasts 4 years, and is divided in four different levels. Academic secondary school lower level (*AHS Unterstufe*) is the one preparing students for university education. For students

¹This is the highest figure of all countries in this study with the exception of Luxembourg (56.1 %). Figures are based on Eurostat 2014 and corrected for population growth.

²While 2.77 % of Austrians were in tertiary education in 2002 (below average), this had risen to 4.30 % in 2011 (above average) (Eurostat 2014). In student numbers the growth is also clear. While in 1955 there were fewer than 20,000 students in higher education, in 2012 this number had risen to almost 318,000 (BMUKK 2013a).

Box 13.1: Austria – The Basics

- 8.5 million inhabitants
- Capital: Vienna
- Federal republic, nine Bundesländer
- Social-democratic/christian-democratic-conservative coalition in power

Box 13.2: Education in Austria

- Nine years compulsory from age 6
- Four years primary education
- Four types of lower secondary school
- Universities and *Fachhochschulen* provide main types of higher education institutions
- Relatively open higher education admission, based on secondary school exam
- Small annual fee for university education
- Ministry of Education and Women's affairs responsible for primary, secondary and teacher education
- Ministry of Science, Research and Economy responsible for higher education

entering upper secondary school,³ there are even more possibilities (see Fig. 13.1). However, students aiming for university generally remain at the same school, now at the upper level (*AHS Oberstufe*). This also lasts 4 years and ends with an exam. Students can be ready for university after completing 12 years of education and passing the exam, usually at the age of 18 (see Fig. 13.1). Weyringer (2013, pp. 370–372) provides a more detailed overview (in English) about the Austrian school system. A summary of the educational system flow from primary to tertiary education is also shown in BMUKK (2013b), and with some more comments in Institut für Bildungsforschung der Wirtschaft (2011).

There are different ways to get an entrance ticket to Austrian universities. The most important is through *Matura*, the general high-school exit exam. In Austria, this is officially known as the *Reifeprüfung*.⁴ The exams are not yet standardized nationally, but are taken per school and administered by the candidates' own teacher and an examination board that includes one external examiner. Standardization is foreseen for 2015.⁵ Historically, Austrian students who passed the *Reifeprüfung*

³This includes the last year of compulsory education.

⁴It consists of a number of written and oral exams. Compulsory subjects are German and mathematics and one foreign language, usually English.

⁵Details of government plans on this matter can be found at <https://www.bmbf.gv.at/schulen/unterricht/ba/reifepruefungneu.html>

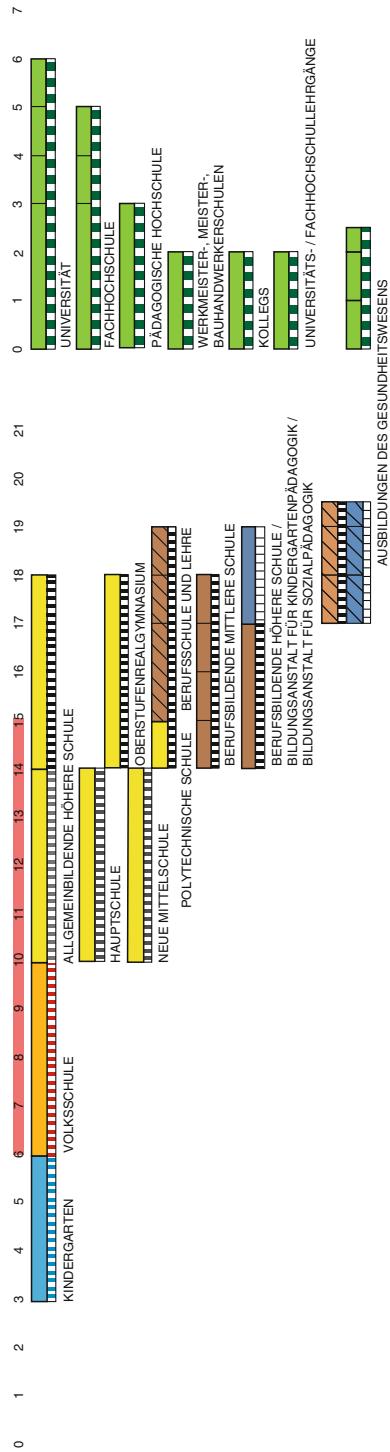


Fig. 13.1 Structure of the Austrian education system (Eurydice 2014) see Fig. 3.1b for standardized legend

were free to go to any university and study any subject they wanted. Partly because of the enormous increase in student numbers in recent years, in February 2013 a bill was passed in parliament, requiring extra entrance examinations for some studies. Included were popular studies such as medicine, dentistry, business administration, psychology, biology and communication science. University education in Austria was free until 2001, when a fee of around € 360 per semester was introduced. Current legislation requires only students who study longer than the formal minimum study period plus two tolerance semesters to pay the fee. Many exemptions to this rule are in place.⁶

Austria has six 'classic' universities, offering a broad spectrum of opportunities. The oldest and by far largest is the University of Vienna, which was founded in 1365, and has over 90,000 students. This is also the only Austrian university featuring prominently on world rankings.⁷ There are also a number of specialized universities, which were in some cases 'cut off' the traditional universities.⁸ All the main universities are state institutions. Since 1999 private universities are also allowed. They are usually specialized in areas such as design and theology and cater for less than 10 % of the student population (ÖPUK 2013).

Since the 1990s, Austria also has universities of applied sciences (*Fachhochschulen*), where teaching is focused more on the acquisition of professional skills (FHGuide 2013; BMWF 2013a).⁹ In total, Austria has 73 higher education institutions. To find honors programs, we focus on 22 public universities. See Box 13.3 for more details.

Box 13.3: Austrian Higher Education Landscape

22 Public universities (6 general, others specialized);

21 Universities of Applied Sciences (*Fachhochschulen*), offering professionally oriented bachelor, master and postgraduate programs;

13 Private universities;

17 University Colleges of Teacher education

⁶For example, in cases of illness, pregnancy, disability, child care and professional occupation fees are waived. For more information, see <https://www.help.gv.at/Portal.Node/hlpd/public/content/16/Seite.160104.html>

⁷The University of Vienna is found at place no. 170 of the Times Higher Education World University Rankings 2013–2014 and place 151–200 in the Shanghai ranking.

⁸These include technical universities in Vienna and Graz, medicinal universities in Vienna, Graz and Innsbruck, the University of Economics and Business in Vienna, University of Veterinary Science in Vienna, University of Natural Resources and Life Sciences in Vienna, University for Continuing Education in Krems and the Montanuniversität Leoben (for mining etc.). There is also a number of art universities, mostly in Vienna.

⁹At the time of writing there are 21 *Fachhochschulen*, most of which offer a wide range of subjects, but some offer just a restricted number of degree programs in specialized subjects.

13.2 Culture and Policy Towards Excellence

In Austria, the meaning and acceptance of giftedness and gifted education can be characterized as being ambivalent: On one hand, a great variety of supportive initiatives and endeavors can be listed, and on the other hand strong reservations toward the label highly gifted can be identified. (Weyringer 2013, p. 365)

According to University of Salzburg researcher Stephanie Weyringer, Austrians do not like to use the term ‘gifted’, because it separates an individual from the group. But while terminology use is difficult, provisions for talented children and young people have developed nonetheless. The first steps on the road to promoting excellence in Austrian education were set in the late 1980s.¹⁰ Until that time, it was highly disputed. According to ÖZBF (Austrian Research and Support Center for the Gifted and Talented) researcher Claudia Resch, this rested on three reasons: one, the severely negative connotation of the term “elite” because of the Nazi past, two, the commonly held belief that gifted children and adults do not need any further support measures, and three, the differentiated school system (Resch 2014, pp. 11–12). While these reasons are still sometimes mentioned, ‘it became increasingly clear that special provisions for gifted children were a necessity’. Focusing on higher education, the first excellence program at an Austrian university started in 1989: the Center of Excellence at Wirtschaftsuniversität Wien.¹¹

The national institution ÖZBF was formed in 1999. Subsequently, excellence in primary and secondary schools was well-established. In 2006, an extensive report on ‘excellence in research’ (FWF 2006) was ordered by the government and subsequently debated in parliament. A next step was the creation of the Task Force for Giftedness Research and Gifted Education, which consists of members from both ministries concerned with education and the ÖZBF.¹² At the request of the education minister, this Task Force has written the White Paper ‘Promoting Talent and Excellence’ (ÖZBF 2013a, published in English and German), providing an overview of talent/excellence programs at different levels of education in Austria. The White Paper calls for the promotion of talents and excellence in every educational institution, ranging from kindergartens, schools and universities, to adult education facilities, communities, and companies. It describes how the promotion of talents can be implemented in each of these areas of action. Furthermore the White Paper discusses the importance of research, the creation of support and research networks,

¹⁰ In 1986, a local association for highly gifted children in the Salzburg area was founded. This later resulted in the formation of the Österreichische Zentrum für Begabtenförderung und Begabungsforschung (Austrian Research and Support Center for the Gifted and Talented; ÖZBF), which is still based in Salzburg.

¹¹ This highly successful program is described in more detail below. An overview of early initiatives throughout Austria at all levels can be found in Resch 2014.

¹² One of the other results was that in 2009, the new Institute of Science and Technology Austria (IST) was formed, with the ambition ‘to become a world-class research center. By 2026, up to 1,000 scientists and doctoral students will conduct research in an international state-of-the-art environment’ (IST 2013).

and the relevant training for teachers and counsellors. Also, wishes for policy development are formulated. Regarding tertiary education, three key aspects call for further attention: 'More targeted actions to identify particular abilities are needed, as well as more specific programs to promote excellence. Furthermore, academic instruction should take into greater account the needs of talented and highly motivated university students' (ÖZBF 2013a, p. 81). One of the wishes is fulfilled, as a professor in giftedness research and support at the University of Graz was appointed. Professor Roland Grabner started in autumn 2014 (Box 13.4).

Box 13.4: Local Terminology

The word 'honors' is rarely used in Austria. Instead, most policies and programs have the word excellence in them.

Local terms to refer to (programs for) talented and gifted students include:

- *Talente Programm* (talent program)
- *Exzellenz-Programm* (excellence program)
- *Begabtenförderung* (gifted education)
- High Potential Programm
- *Pluskurse* ('plus course')

For talented and gifted primary and secondary school-aged children, there is a wide range of programs available. In compulsory education, grade skipping has been possible since 1974 and special additional programs can formally run since legal changes in 1988 (Weyringer 2013, p. 374). In 2009, the ministry issued a 'Decree for the Education of the Gifted', firmly institutionalizing programs for this group. There is also a school specifically targeting gifted students: the Sir Karl Popper School in Vienna (ibid, pp. 376–377).¹³ In addition, many initiatives are found outside the schools. National coordination rests in the hands of the ÖZBF. Countrywide programs include Olympiads in different subjects, summer academies and special children's courses at universities (*KinderUnis*). Also, all of the states have their own programs for gifted secondary school students. For some this is relatively new, others have a longer experience.¹⁴ At different universities in Austria, excellent high school students are able to follow classes for free. ÖZBF has a program in place to support this, called *Schüler/innen an die Hochschulen*.¹⁵ After

¹³ See also www.popperschule.at

¹⁴ An overview of the programs by Bundesland (in German only) can be found in ÖZBF 2013b. Some examples: In Niederösterreich, excellent students can apply for a place in a week-long intensive course at the castle of Drosendorf. In Kärnten, there is a summer school (talente camp) for gifted 10- to 14-year-old students, organized by Inizia, a local society for gifted children. In Salzburg, there are Pluskurse for students of different primary and secondary school ages.

¹⁵ More information (German only) can be found on the ÖZBF website.

graduation from high school (*Matura*), students receive full credits for completed courses when enrolling at a university.

The attention for gifted and talented children in primary and secondary education has also found its way towards teacher training colleges. The Higher Education Act (2005) established talent promotion at these colleges (ÖZBF 2013a, p. 40). This is coordinated by the Federal Coordination Board for Gifted Education.¹⁶ There are at least four programs to train teachers to become experts in gifted education (iPEGE 2010).¹⁷

While the Austrian government does not currently have a policy to support honors programs in tertiary education, it does stimulate excellence on an individual basis. At universities, applied sciences universities and teacher training colleges, gifted and high-achieving students are usually supported by allowances such as achievement-based scholarships or awards for masters or Ph.D. theses (ÖZBF 2013a, p. 87). This takes the form of grant programs (*Stipendienprogramme*) and prizes. Grants are handed out by different organizations on the basis of excellent study results and/or high motivation. These can be funded by the government, but also by private organizations.¹⁸ The excellence grant (*Exzellenzstipendium*) is a new initiative from the federal government. Excellent students wishing to obtain a Ph.D. can apply for a one-time allowance of 9,000 euros (Galler 2013, p. 56) (Box 13.5).¹⁹

Box 13.5: Key Players in Excellence

In the White Paper, the following institutions are considered ‘the pillars for developing talent and excellence in Austria’:

- the authorities concerned at both federal ministries
- the Austrian Research and Support Center for the Gifted and Talented (ÖZBF)
- the Task Force for Giftedness Research and Gifted Education
- federal coordination office for the promotion of giftedness and talent at teacher training colleges
- the provincial coordinators for gifted education

¹⁶Bundeskoordinationsstelle für Begabungs- und Begabtenförderung. It is located at the Teacher Education College in Vienna (Pädagogischen Hochschule Wien).

¹⁷These four programs are: Lehrgang ‘Expert in Gifted Education – Begabungen erkennen und fördern’ at the Kirchlichen Pädagogischen Hochschule in Wien/Krems; Akademielehrgang ‘Begabungs- und Begabtenförderung’ at the Pädagogischen Hochschule Oberösterreich in Linz; Lehrgang ‘Begabungsförderung und Potenzialentwicklung’ at the Pädagogischen Hochschule Steiermark in Graz; university Lehrgang ‘Gifted Education, MA’ at the Donau-Universität Krems.

¹⁸For example, the organization ProScientia supports 120 talented students (ÖZBF 2013a, p. 88). Local terminology used for these (financial) programs are: Leistungsstipendien, Förderungsstipendien, Exzellenzstipendien.

¹⁹This is in place since the study year 2012/2013.

13.3 New Developments

Publication of the White Paper has certainly put the subject of excellence higher on the political agenda. ÖZBF researcher Resch has made a SWOT-analysis of the current national strategy, and sees a number of opportunities (Resch 2014). One opportunity is formed by the new government program, published in December 2013. While the same coalition remained in power after the 2013 elections, the new government restructured the tasks of ministries. The former ministry of Education, Arts and Culture is now the ‘ministry of Education and Women’s Affairs’ and the ministry for Science and Research has merged with the Economics ministry to the new ministry of Science, Research and Economy. One of the objectives in the government’s work program is to ‘Foster talent and gifted pupils – discover and support all gifted pupils and talents’ (Austrian Federal Chancellery 2013, p. 44). This still needs to be worked out in concrete policy.

The Austria Science Board has been lobbying for more funding for excellent research, similar to the German Excellence Initiative (Nimmervoll 2013), and this has also found its way into the government program (Austrian Federal Chancellery 2013, p. 45) but, as of yet, not into explicit policy.

Overall, Resch (2014, p. 9) has an optimistic outlook: ‘While until the 2000s, provision programmes predominantly focused on extracurricular activities for pupils, gifted education now follows a systemic and inclusive approach, including all (educational) institutions – kindergarten, school, college and university – as well as the family, the economy, the working world and the community’.

13.4 Honors Programs per University

In Austria, there is no standard program or procedure for talent and excellence promotion at the university level. ‘Depending on their individual profiles and performance agreements, universities differ strongly with regard to the degree to which talent and excellence promotion is established’ (ÖZBF 2013a, p. 90). There are no programs at the 22 universities that include the word ‘honors’ and projects fitting the definition of a honors program are still quite rare.

ÖZBF has recently been commissioned by the ministry to conduct a survey of excellence programs in higher education. A preliminary part of the resulting report, focusing only on the 22 public universities, was kindly provided to us by ÖZBF. The overview of excellence programs below draws from this overview, prepared by ÖZBF researcher Dr. Astrid Fritz (2014). She contacted universities with a similar question, which is why we have not contacted all universities ourselves, but just the ones with an identified program. More information on other higher education institutions was not yet available through ÖZBF.

Higher education institutions were asked for concrete measures to support talent on financial, structural and social level. The goal is to spread successful ‘best practices’ and to develop a comprehensive strategy for the promotion of talent and excellence in tertiary education in Austria. In addition to the programs below, some



Map 13.1 Austrian universities with honors programs, 2014

measures for Ph.D. students and early-stage researchers employed at universities were also found.²⁰ The programs described below have some interesting aspects in common: they are all organized in year groups, run by the participants themselves, and have strong business involvement.

As in Germany, an important way to help talented students in Austria involves providing financial support. At different universities, prizes, grants and stipends are available. There are also nationwide or even international prizes. Showing the availability of these grants is also used to attract talented students. For example, the University of Klagenfurt tries to attract talented high school students in economics by offering them international opportunities. ‘We guarantee a well-financed study place for your semester abroad’.²¹

In addition, a non-university based network was also found, called Students4Excellence. In early 2014, this network merged with the German-based e-fellows network and is therefore discussed in the chapter about Germany.

On Map 13.1, the honors education offer at the 22 public Austrian universities is summarized. In Table 13.1, all universities are shown, ranked by size measured in student numbers.

13.4.1 *University of Graz and Technical University of Graz*

13.4.1.1 *Circle of Excellence Graz*

The Circle of Excellence Graz was founded in 2001 by three students who met by chance and concluded that although they were all top achievers with experience abroad, there was no network allowing them to meet each other. Their goal was to

²⁰For example, the Medical University of Vienna runs several of these programs, including the MD Ph.D. program aimed at acceleration of talented Ph.D. students and the ‘Schrittweise’ program for talented young scientists.

²¹For more information, see <http://wiwi-studien.aau.at/index.php/starten/top-maturantinnen-gesucht>

Table 13.1 Honors programs at universities in Austria^a

University	Webpage	No. of students, 2012 ^b	Honors education offer ^c
University of Vienna	Univie.ac.at	92,426	
University of Graz	Kfunigraz.ac.at	29,127	Yes
Vienna University of Technology	tuwien.ac.at	27,900	Yes
University of Innsbruck	Uibk.ac.at	27,766	
Vienna University of Economics and Business	Wu.ac.at	23,555	Yes
University of Linz	Jku.at	18,834	
University of Salzburg	uni-salzburg.at	17,853	
Graz University of Technology	Tugraz.at	12,679	Yes
University of Natural Resources and Life Sciences, Vienna	boku.ac.at	11,389	
Alpen-Adria University Klagenfurt	uni-klu.ac.at	10,891	
Medical University of Vienna	meduniwien.ac.at	7,465	
Danube University for Continuing Education Krems	donau-uni.ac.at	6,894	
Medical University of Graz	meduni-graz.at	4,090	
Leoben University of Mining and Metallurgy	unileoben.ac.at	3,338	
University of Music and Performing Arts in Vienna	mdw.ac.at	3,242	
Medical University of Innsbruck	www.i-med.ac.at	2,781	
University of Veterinary Medicine Vienna	vetmeduni.ac.at	2,285	
Kunst Uni Graz	kug.ac.at	1,950	
University of Applied Arts Vienna	dieangewandte.at	1,710	
Mozarteum University Salzburg	uni-mozarteum.at	1,698	
Academy of Fine Arts Vienna	akbild.ac.at	1,434	
University of Art and Design Linz	ufg.ac.at	1,156	
Total		299,355	

^aTo compile this list, Fritz 2014 was used as a basis

^bSource: BMWF (2013b, p. 31)

^cIn this table, we do not show the answer ‘no’ because not all HEIs were contacted by us, but we relied on data from other sources (Fritz 2014)

‘improve the national and international competitiveness of the alumni of the five universities in Graz’. Other goals were to build a useful network and to avoid the anonymity of a big university. In their own words: ‘The CoE is formed by outstanding students, companies and university professors. Every year, these three elements create a unique group, united by the values of the CoE’ (Circle of Excellence 2009).

Table 13.2 Circle of Excellence Graz

<i>Organizing institution</i>	Independent association, supported by University of Graz and Technical University of Graz
<i>Form</i>	Interdisciplinary program
<i>Target group</i>	Master students (or equivalent level)
<i>Admission</i>	Selection based on motivation letter and CV
<i>Description</i>	Each year a group of 20 students is formed which runs a year-long program of career training, seminars and group activities
<i>Founded</i>	2001
<i>Participants</i>	20 per year
<i>Website</i>	www.coe-graz.at

The program is meant for students with career ambitions in trade and industry. A number of international companies are partners of the program, providing workshops for the participants and often offering job training or internships. After the selection process, a year-long program of seminars, training activities and team activities starts. After the first meeting, organization of activities is in the hands of the group itself, with university supervisors guiding the process. The Circle of Excellence is supported by the universities, but not part of the university. It is run by a board, which changes every year and consists of participants and alumni. Upon completion, participants receive a certificate issued by the program. They also remain members of the CoE and can be involved in, for example, the selection of new participants (Table 13.2).

13.4.2 Vienna University of Economics and Business (Wirtschaftsuniversität Wien)

13.4.2.1 General

This university focuses strongly on the education of talents and has different programs to provide students with extra opportunities. The Centre of Excellence for master students has been running since 1989 and is the oldest program found in Austria. In 2004, the WU Top League was formed as a spin-off for bachelor students. Apart from these two interdisciplinary programs, there is also the mentoring@wu program, where talented students in later years of their program become mentors for starting students. To all students, the volunteering@wu program is available, where the students help children and young people in difficult situations to learn.²²

²²More information about all programs for bachelor students (German only) is available at www.wu.ac.at/students/bachelorstudents/excellence

13.4.2.2 Specific Programs

The WU Top League for bachelor students was founded in 2004, as a spin-off to the Centre of Excellence (described below), but has become a full program in its own right. The program goal is ‘the motivation of participants to strive for top study achievements’. Students from the whole (specialized) university can enter in their first semester.²³ Competition is fierce, there are generally about 300 applicants for 80–100 places. The six-semester program is divided in two phases, each lasting three semesters. First, small groups are formed. The basis is a buddy system of tutoring and mentoring, where senior students help Phase I students. Throughout each semester, a number of events (excursions, lectures) are organized for the whole group, as well as coaching sessions and opportunities for short internships at partner organizations. In Phase II, focus is more on job training and sponsor meetings.

Moving to the master phase, the Center of Excellence (CoE) is Austria’s oldest, largest and best-known program for excellent students. Its goal is clearly described: ‘the development and support of a student elite’. The program is organized in year groups and involves a ‘triangle’ of participants: students, supporting university staff and businesses. Each year, all of the approximately 900 new master students at WU are invited to apply. Around 110 students will apply for 35–40 seats. After the selection process, the group starts with a kick-off weekend, where small groups are formed. Each of these groups works to organize two or three special events. This can be a seminar, an excursion, soft skills training, etcetera. In the following four semesters many activities take place. At the end of the fourth semester the group writes a final report, which is published on the website.

A special feature of both programs is the business involvement. Every year group has its own sponsor, a company or non-profit organization. The sponsorship involves a financial contribution, but also personal investment. Two or three company employees will join the group in their events. In both the WU Top League and the CoE, students who meet all the criteria receive a certificate after successful completion. More information is provided in the interview with coordinator Susanne Aigner in Box 13.6 (Tables 13.3 and 13.4).

Box 13.6: ‘Guiding the Best of the Best’

Interview with Susanne Aigner, program coordinator Top League/CoE at WU Wien

What is the main motivation for students to join the program?

‘Students see it as a big chance to meet new people, get new opportunities and challenge themselves. Also, participation definitely helps them in getting a job. Often the group sponsors will offer traineeships. That can be a nice start for a career.’

(continued)

²³A later start is also possible: students with excellent results in their first three semesters receive an automatic invitation for phase II, others can also apply.

Box 13.6 (Continued)

What is the involvement of university faculty in the programs?

‘Every group has academic supervisors: usually a professor and his or her assistant. They join the group and supervise the process. But we want the group to manage itself. We organize a kick-off weekend where we tell the students about the possibilities they have and divide them into smaller groups. From then on, we want to just guide them, we want the group to do the work.’

Is your program well-known in Austria?

‘Yes. Many Austrian companies have been involved as a sponsor and we have of course our alumni who have spread out throughout Austria and the world. The Center of Excellence in particular has a good name. This is because students come from our English-language master programs, for which the best Bachelor students are selected. And for the Center of Excellence, we select the best of those. So we can say we have “the best of the best”. Businesses like that.’

Table 13.3 WU Top League

<i>Organizing institution</i>	Vienna University of Economics and Business
<i>Form</i>	Interdisciplinary program
<i>Target group</i>	Bachelor students
<i>Admission</i>	Selection based on high school exam grades, CV, motivation letter and essay
<i>Description</i>	Each year a group of 80–100 students is formed which runs activities over six semesters
<i>Founded</i>	2005
<i>Participants</i>	80–100 per year group (3 year groups active at same time)
<i>Website</i>	www.wu.ac.at/wutopleague

Table 13.4 WU Centre of Excellence

<i>Organizing institution</i>	Vienna University of Economics and Business
<i>Form</i>	Interdisciplinary program
<i>Target group</i>	Master students
<i>Admission</i>	Selection based on grades, CV and motivation letter
<i>Description</i>	Each year a group of 30–40 students is formed which runs activities over four semesters
<i>Founded</i>	1989
<i>Participants</i>	30–40 per year group (two year groups active at the same time)
<i>Website</i>	www.wu.ac.at/coe

Table 13.5 Technical University of Vienna – TUthetop

<i>Organizing institution</i>	Technical University of Vienna
<i>Form</i>	Interdisciplinary program
<i>Target group</i>	All students
<i>Admission</i>	Selection based on grades, CV, motivation letter and assessment
<i>Description</i>	Each year a group of 60–70 students is formed which runs a year-long program of training, seminars and group activities
<i>Founded</i>	2007
<i>Participants</i>	60–70 per year
<i>Website</i>	tuthetop.at

13.4.3 Technical University of Vienna (TU Wien)

The excellence program TUthetop at the Technical University of Vienna is developed in close cooperation with partner companies. Its goal is the promotion of employability and the obtaining of key skills that go beyond the study of theoretical concepts. The best students (around 1,600 of the 27,000 in total at TU Wien) are invited to apply for this co-curricular program. The admission procedure is then based on an extensive application and an assessment. A year group of 60–70 students is formed, which runs a large number of activities during the year. The basic idea involves students designing their own program, in cooperation with partner companies and staff at the university. At the end of the year, the group produces a final report (published on the website) and students receive a certificate (Table 13.5).

The honors programs found at Austrian universities are all centered on year groups and all involve the private sector. Development is strongest at specialized universities. Will the same picture emerge when we look at neighboring Switzerland? We will find out in the next chapter.

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²⁴**Note:** Literature used to prepare this book is included on this list. Some of the entries are in local languages and have not been read completely by the researchers. Instead, they have been searched with keywords to retrieve relevant information.

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Chapter 14

Switzerland: A Patchwork, Not (Yet) Including Honors

14.1 Education System

Switzerland spends an equivalent of around 11,000 euros per capita on education and training each year. This is the highest amount of all European countries. (OECD 2013)¹

Switzerland is a country with great diversity, multiple languages are spoken and different cultures co-exist. The standard of living is high and, as a politically neutral country which is not a member of the EU, it is an ideal location for international organizations (Box 14.1).

Switzerland has quite a unique form of state and national government. It is a confederation of 26 cantons, a kind of autonomous provinces, where many powers are decentralised. At the same time, Switzerland is known for its direct democracy. The Swiss people regularly decide on political subjects through a referendum. Multilingualism is an important subject in Switzerland. Four languages are officially recognized, but almost a quarter of the population is foreign and a large part of this group speaks yet another language at home. German is the main official language spoken, with 64.9 % of the population stating it as their main language. This is followed by French (22.6 %) and Italian (8.3 %) (Bundesamt für Statistik 2014²).

Cantons take decisions about their own education system, which leads to regional differences, for example in the types and duration of education and assessment systems. There are many cooperative bodies in which the cantons, schools or universities work together on education matters of policy and procedure. As a

¹The amount referred to is USD 14,922, this is calculated into euros using exchange rate on 9-7-2014. See also SERI 2013, p. 10. Only the United States spends a higher amount. This relates to 5.2 % of GDP in 2010, or 15.9 % of total government expenditure.

²Numbers are for 2012. People could indicate more languages as main language. The last official language, Romansh, is main language for 0.5 % of the population. Several foreign languages, including English at 4.6 %, are spoken as main language by more Swiss residents. See also Müller-Oppliger 2014.

Box 14.1: Switzerland – The Basics

- 8.0 million inhabitants
- Capital: Bern
- Confederation, 26 cantons
- Four languages: German, French, Italian, Romansh
- Liberal/Conservative/Social-democratic/Christian-democratic coalition in power

consequence, the Swiss education landscape is a complicated patchwork. The most important institutions are the Swiss Conference of Cantonal Ministers of Education,³ which sets guidelines and addresses the harmonization of education throughout the cantons; and the State Secretariat for Education, Research and Innovation (SERI), which is the federal government's specialised agency for national and international matters concerning education, research and innovation policy. The cantons and the national government cooperate on university matters in the Swiss University Conference.⁴ The higher education institutions are united in the Swiss Conference of Rectors of Higher Education Institutions, swissuniversities. (Box 14.2).⁵

Box 14.2: Education in Switzerland

- Administered mainly by cantons, each with own regulations
- Compulsory for at least 9 years (starting age differs per canton)
- Four to six years primary education, 3–5 years of lower secondary school
- Differentiation in academic and vocational education around age 15
- Universities and universities of applied sciences (*Fachhochschulen*) provide main types of higher education institutions
- Open access to higher education for everyone holding relevant diploma
- One in four students is foreign national
- Tuition fees at universities ranging from 1,000 to 4,000 Swiss francs (820–3,280 euros) per year
- Cantonal ministers responsible, Conference of Cantonal Ministers of Education (with chairman) for central matters

³ Schweizerischen Konferenz der kantonalen Erziehungsdirektoren/Conférence suisse des directeurs cantonaux de l'instruction publique, EDK/CDIP.

⁴ Schweizerischen Universitätskonferenz (SUK)/Conférence Universitaire Suisse (CUS).

⁵ Until 2014, there were three separate Rector's Conferences: the Rectors' Conference of the Swiss Universities (CRUS), the Rectors' Conference of the Universities of Applied Sciences Switzerland (KFH) and the Swiss Conference of Rectors of Universities of Teacher Education (COHEP). At 1 January 2015, they have merged into the Swiss Conference of Rectors of Higher Education Institutions, swissuniversities.

The organization of primary and secondary education differs per canton, but differentiation is first made after lower secondary education, around the age of 15. Children can then go to academic or vocational education. The upper level of general secondary education is called baccalaureate school,⁶ ending with a baccalaureate giving access to university studies (Nuffic 2013).⁷ In Switzerland, a clear majority of young people attend vocational education and training (VET). There are dual-track VET programs of 3 or 4 years (apprenticeship) for some 230 professions. The Federal Vocational Baccalaureate entitles students to continue on to a university of applied sciences without sitting an examination. It can also give them access to a (tier-one) university if they take the ‘Federal Vocational Baccalaureate – University’ examination, also known as the ‘University Aptitude Test’. The Federal Vocational Baccalaureate can be obtained either on a part-time basis, i.e. during the apprenticeship, or during an additional year of schooling after completion of the apprenticeship. It is always acquired in addition to the VET qualification⁸ (see Fig. 14.1).

Higher education in Switzerland consists of academic education and higher vocational education. In principle, everybody holding recognized upper-secondary level qualifications can enroll in higher education in Switzerland (SERI 2013, p. 4), although restricted entry numbers are set for some very popular studies such as medicine. Swiss HEIs enjoy great autonomy. As a result, study programs, entry level requirements and admission procedures vary a great deal (Nuffic 2013, p. 8).

The state secretariat distinguishes between tier-one universities and other institutes of higher education (SERI 2013; see Box 14.3). The tier-one universities are ten general universities and two federal technical universities (*Eidgenössische Technische Hochschulen*, ETHs). They stand in a long tradition (the first Swiss university was founded in Basel in 1460) and their quality is high. Both federal institutes of technology, especially the one in Zürich, score high on international rankings. ETH Zürich is in the top-20 of both the Times Higher Education World University Rankings and the Academic Ranking of World Universities 2013. As in Germany, academic research is not only carried out at universities but also at institutes. Examples include the Paul Scherrer Institute and the Swiss Federal Institute for Forest, Snow and Landscape Research. Switzerland also has several international research organizations within its borders, of which CERN (European Organization for Nuclear Research) based in Geneva is the most famous.

The universities of applied sciences were founded in the 1990s, mostly bringing existing institutes for higher vocational education in the cantons into a new, nationally

⁶Gymnasiale Maturitätsschulen/Lycées/Ecole de Maturité Gymnasiale.

⁷Pupils take a final examination at different levels for different subjects: at *Grundlage* level for all core subjects, at *Schwerpunkt* level for one subject and at *Ergänzungs*-level for one subject. The final examination may also include an elective subject.

⁸Universities of applied sciences generally admit ‘students with a Federal Vocational Baccalaureate and with vocational education and training, related to the chosen field of study and students with a federally recognised baccalaureate and at least one year’s professional experience in which practical and theoretical professional skills were taught in a profession related to the field of study without additional conditions’ (Eurypedia 2014, chapter 7.2.1).

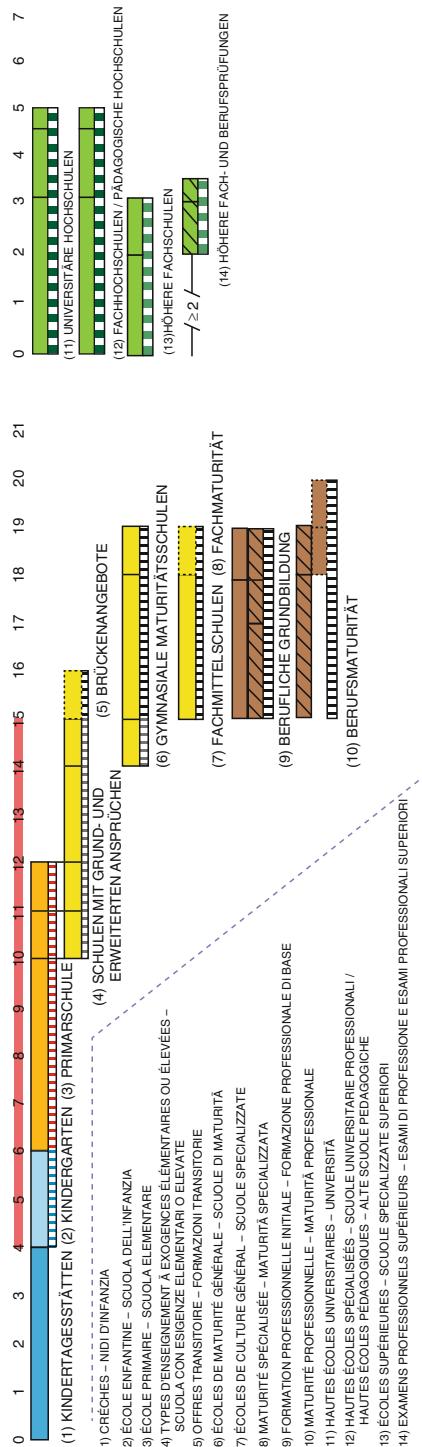


Fig. 14.1 Structure of the Swiss education system (Eurydice 2014) see Fig. 3.1b for standardized legend

Box 14.3: Higher Education Landscape

12 tier-one universities (10 general cantonal, 2 federal technical)

7 regional public universities of Applied Sciences (*Fachhochschulen*)

2 recognized private *Fachhochschulen*

14 teacher training institutes

A number of private universities operating outside Swiss education system

standardized system. They have established themselves relatively quickly as an inherent part of the Swiss education system (Swiss Universities 2014).

There are also quite a few private universities that operate outside the Swiss education system, for example Swiss campuses of American universities or specialized institutes. They often charge very high tuition fees. As these institutes do not fall under the Swiss system, we will not discuss them any further.

14.2 Culture and Policy Towards Excellence

We don't have reserves of oil or gold in the ground. What we have in Switzerland is our knowledge. This is our economic capital. (...) Everyone is convinced that we have to have expertise and excellence and that this is important for the future⁹

As Switzerland is such a patchwork of cultures, a general culture towards excellence is hard to describe. While there is a tradition of focusing on egalitarianism and equality, there is also a tradition of focusing on quality and individualism. So on the one hand the egalitarian tradition translates into a focus on measures to guarantee equality (IBE 2008, p. 3), while on the other hand the need to do something extra for talented and gifted children is felt quite strongly. Professor Müller-Oppliger describes this 'double view' as follows: 'What Swiss people don't like is to separate. We really are obliged to the idea of inclusive gifted education. Every school should have their program for gifted children, but we should not have special elite gymnasiums or elite universities. That is something that in Switzerland is refused mentally'.¹⁰

In primary and secondary school, incidental initiatives for gifted children date back to the 1970s, while more structured attention goes back to the 1990s. Mostly these first efforts were focused on giving extra opportunities within the classroom, or extra courses outside school hours. Despite the words of professor Müller-Oppliger, different special private schools were also founded, such as Talenta in Zürich which has existed since 1998. Most of these schools charge high tuition fees.¹¹

Since 2000, all 26 cantons 'have adopted their own policies to identify giftedness and to improve the support for high-end learners' (Müller-Oppliger 2014, p. 94).

⁹Personal communication Victor Müller-Oppliger, February 2014. See Appendix 4 for a full interview.

¹⁰Personal communication Victor Müller-Oppliger, February 2014. See Appendix 4 for a full interview.

¹¹A year at the Talenta primary school costs over 25,000 Swiss francs (more than 20,000 euros). See www.talenta.ch for more details.

There are a number of nationwide and regional networks focusing on ‘gifted education’ and the offer of extra opportunities has become larger in recent years (Box 14.4). One example is the private foundation *Stiftung für hochbegabte Kinder*. Among other initiatives, it awards the LISSA prizes. This prize offers official recognition to schools that offer good opportunities for talented and gifted children. So far, 43 schools at different levels have received this prize.¹²

Box 14.4: Key Players in Excellence

The following institutions can be considered key players in the field of excellence in education:

- State Secretariat for Education, Research and Innovation (SERI)
- Swiss Conference of Cantonal Ministers of Education
- Swiss Universities (Rector’s conference)
- Network for gifted education (*Netzwerk Begabungsförderung*)
- Association for highly gifted children (*Stiftung für hochbegabte Kinder*)
- Swiss Study Foundation (*Schweizerische Studienstiftung*)
- SwissGifted, association for gifted education

Schools often work with private foundations and/or universities to organise extra opportunities for talented children, as cantonal and confederal support is usually very limited. One of the nationwide programs for these children is *Schweizer Jugend forscht* (SJF), founded in 1970 and aimed at talented secondary school students. It organises study weeks and competitions and hosts the biannual Swiss Talent Forum (last held in January 2014). In this 4-day congress, 80 talented 17- to 22-year-olds meet and brainstorm with leaders in business, science and politics. Every year, around 600 talents take part in SJF activities. It is sponsored by private donors and a large number of companies (Schweizer Jugend forscht 2014). Another example is *Curriculum Euler* in Western Switzerland, which offers mathematically gifted students aged 10–13 an accelerated path in mathematics in secondary schools, followed by an early introduction to university mathematics. This program is sponsored by private donors and the Federal Technical University of Lausanne (EPFL 2014). An honors experiential learning program called ‘City as Text’ was also applied in Switzerland, for a group of 16- and 17-year-old international baccalaureate students (see Smith 2012).

Generally speaking, talented secondary school students often have the possibility to get an early start at university level, as most universities have opened up to these talents in recent years (Müller-Oppliger 2014). Talented students in vocational education and training (VET) have the opportunity to participate in SwissSkills competitions. The national foundation SwissSkills is supported by all professional organizations and institutions of VET.¹³

¹² See key links in Appendix 2 for details. Another example is parents’ association EHK, which organises Kinderuni camps.

¹³ SwissSkills is also the national qualification organization for WorldSkills Europe and WorldSkills International.

Box 14.5: Local Terminology

The word ‘honors’ is rarely used in Switzerland. Local terms used to refer to (programs for) talented and gifted students include:

- *Begabte/Begabtenförderung* (gifted/gifted education)
- *Enfants/étudiants surdoués* (gifted children/students)
- *Exzellenzprogramm* (excellence program)

Experts in gifted education are united, since 1999, in the *Netzwerk Begabungsförderung*, which tries to influence political decision makers and business leaders to invest more in educating talents. The network has put forward its ideas in a position paper, including a ‘wish list’ of instruments that could be implemented at the school level, the teaching level or as support measure (Netzwerk Begabungsförderung 2013). The needs of gifted children and youngsters are also included in teacher training. For example, there is an international master program to educate teachers in integrated gifted education and talent development at the Fachhochschule Nordwestschweiz. This is mainly aimed at primary and secondary education teachers. Until 2014, 290 teachers graduated from this course (Müller-Oppliger 2014, p. 98). Still, ‘Switzerland has a lack of research in gifted education because there is no chair or institute of a university specifically signed for gifted education and talent development’ (ibid).

Thus, quite an extensive infrastructure around ‘gifted children’ exists in Switzerland, including different programs in which higher education institutions participate. However, this has not yet developed towards provisions in higher education itself. Current efforts for talented students are centred on financial support measures (Box 14.5).

The Swiss Study Foundation (*Schweizerische Studienstiftung*), founded in 1991, is the most important body in this respect. It aims to support ‘excellent students and postgraduates at universities and technical colleges who due to their personality, creativity and intellectual skills, are in a position to contribute to science, business, culture and politics. The Foundation offers the students and postgraduates learning opportunities complementary to their studies, an individual mentoring and guidance scheme as well as financial support’ (Schweizerische Studienstiftung 2014). In 2012, 659 bachelor, master and Ph.D. students were in the program. Additional funding is available for talented students who continue into a Ph.D. program. The Swiss National Science Foundation is the most important organization supporting young scientists. It supports over 4,000 doctoral students and around 2,500 postdocs. The Swiss government also offers ‘excellence scholarships’ to international students wishing to pursue a Ph.D. in Switzerland.

14.3 New Developments

As the Swiss political and education systems are such patchworks, it is hard to generalize about possible future developments. However, developments on the subject of honors education can be expected. In September 2014, a large conference on

gifted education was held, organized through the *Netzwerk Begabungsförderung*. All important actors in the field attended and provisions for talented students in higher education was one of the main themes. According to organizer professor Müller-Oppliger, ‘the last two or three years it came up, we have to do something at universities. Something special, not only what students elect to do themselves. We have to do some programs to really serve this elite group that could achieve more. We hope we can bring a point in this discussion with the congress’.¹⁴ He adds that he is working on a pilot project with the Federal Technical University in Zurich and he expects programs will be developed soon: ‘In about three years we will have programs. I am very positive of that.’

14.4 Honors Programs per Higher Education Institution

At the time of writing, Swiss public universities and universities of applied sciences do not have honors programs. A recent overview of gifted education measures throughout the Swiss education system (Müller-Oppliger 2014) did not find programs in higher education.¹⁵ Most of the public higher education institutions do have some sort of scholarship program. This is very relevant, as tuition fees in Switzerland can be quite high, as shown in Table 14.1. The ETH Zürich for example offers an Excellence Scholarship & Opportunity Programme, which covers the full study and living costs during a student’s master degree program. One of the prerequisites is that ‘students must belong to the best 10 percent’ of their bachelor program (based on grades, see ETH Zürich 2014).

In Table 14.1, Swiss universities and universities of applied sciences are shown, sorted by size measured in student numbers.

This concludes our overview of the situation in Switzerland and also of all the German-speaking countries. We have found a variety of programs in Germany and some programs that are similar in set-up in Austria. In Switzerland, chances are honors education will be established soon.

In the German-speaking countries, a strong individual focus is found in its approach towards excellence. The role of foundations and of the private sector are interesting developments, not seen as strongly in the other clusters of countries.

This also concludes our individual country chapters. In the next part, we will compare the countries systematically and make some concluding remarks.

¹⁴ Personal communication Victor Müller-Oppliger, February 2014. See Appendix 4 for a full interview.

¹⁵ In addition to Müller-Oppliger’s findings, websites of all universities were searched with keywords to find any honors programs and local researchers were asked if honors programs are present. None were found. Most of this research was carried out by honors alumnus Annemarie van de Vijsel.

Table 14.1 Universities and universities of applied sciences in Switzerland

Higher education institution	Language	No of students ^a	Tuition fee (Swiss francs) ^b	Webpage
<i>Tier-one universities</i>				
University of Zürich	German	26,400	1,538	Unizh.ch
Swiss Federal Institute of Technology Zürich	German (conf)	17,800	1,288	Ethz.ch
University of Bern	German	17,000	1,568	Unibe.ch
University of Geneva	French	16,200	1,000	Unige.ch
University of Lausanne	French	13,000	1,160	Unil.ch
University of Basel	German	12,500	1,400	Unibas.ch
University of Fribourg	French/German	9,900	1,310	Unifr.ch
Ecole Polytechnique Federale de Lausanne	French (conf)	9,400	1,266	Epfl.ch
University of Sankt Gallen	German	7,300	2,452	Unisg.ch
University of Neuchâtel	French	4,400	1,030	Unine.ch
Università della Svizzera italiana	Italian	2,900	4,000	Usi.ch
University of Lüzen	German	2,400	1,620	Unilu.ch
<i>Universities of applied sciences (Fachhochschulen)</i>				
HES-SO – University of Applied Sciences of Western Switzerland	French	19,100	1,000	Hes-so.ch
Zürich Universities of Applied Sciences and Arts	German	16,800	1,440	Zfh.ch
University of Applied Sciences and Arts Northwestern Switzerland	German	9,400	1,400–1,600	Fhnw.ch
Bern University of Applied Sciences	German	6,700	1,500	Bfh.ch
University of Applied Sciences of Eastern Switzerland	German	6,600	1,000–1,920	Fho.ch
Lucerne University of Applied Sciences and Arts	German	5,500	1,600	Hslu.ch
University of Applied Sciences of Southern Switzerland	Italian	4,000	3,200	Supsi.ch
Kalaidos University of Applied Sciences ^c	German	1927	?	Kalaidos-fh.ch
Les Roches-Gruyère University of Applied Sciences ^c	French	437	?	Lrguas.ch
Total		209,664		

^aSources: CRUS (2013) and SERI (2013)^bFor Swiss students, in some cases the amount is higher for non-Swiss students (amount in Swiss francs, 1 franc is approximately 0.82 euros)^cPrivate institution, federally accredited. Student numbers from own website

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¹⁶**Note:** Literature used to prepare this book is included on this list. Some of the entries are in local languages and have not been read completely by the researchers. Instead, they have been searched with keywords to retrieve relevant information.

Part V

Talent Development and Honors

in European Higher Education:

A Comparative Perspective

Chapter 15

A Comparative Perspective

Why and under what conditions are honors programs in higher education developed in 11 northern European countries? And what is the current situation regarding talent development in those countries? These were the central questions posed in the introduction of this book. Eleven countries were studied. They were grouped into the Benelux countries, the Nordic countries, and the German-speaking countries.

In this final part, consisting of three chapters, we provide answers and conclusions. In this chapter, we compare the culture towards excellence and the development of honors programs in the countries, before moving on to an analysis of the development of programs in the next chapter. In the final chapter, we provide different perspectives, a look into the future, and suggestions for further research. First, we present our most important findings.

15.1 Countries Compared

We reviewed the special provisions for talented students at 303 higher education institutions in 11 countries, with almost four million students altogether. All in all, honors programs are found to be up and running at 72 HEIs in six countries (see Table 15.1).

Over half of all institutions with honors programs are situated in the Netherlands. Many of the Dutch HEIs run more than one program, so the Dutch share in the total number of programs is probably even higher. Germany, which accounts for around half of the total population of all countries in this book, has around a quarter of the HEIs with honors programs. Belgium, Denmark, Finland, and Austria divide the remaining quarter. The Finnish programs are all very small, so we qualify honors development there as low. In the Netherlands, development is high and the other countries with programs qualify as medium (see Map 15.1).

Table 15.1 Honors programs at HEIs per country, overview 2014

Country	HEIs researched in total ^a	HEIs with honors programs
Austria	22	3
Belgium	11	4
Denmark	16	6
Finland	14	3
Germany	110	17
Iceland	7	0
Luxembourg	1	0
Netherlands	52	39
Norway	18	0
Sweden	31	0
Switzerland	21	0
<i>Total</i>	<i>303</i>	<i>72</i>

^aExplanation of the number of researched HEIs can be found in the methodology chapter and the respective country chapters

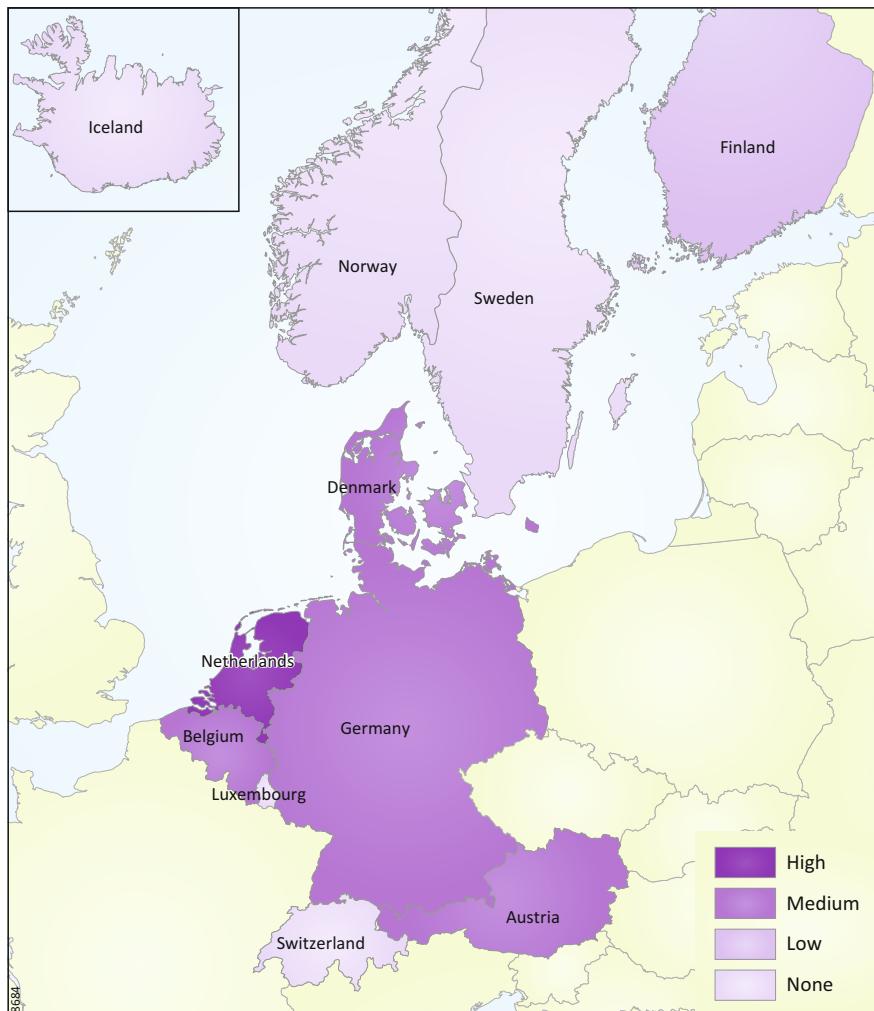
We now put this result in broader context. It is important to note that in the table and on the map showing honors programs in different countries, we focus on the HEIs offering honors education. We do not have the exact comparable details about the number of individual programs and student numbers nor about very important factors such as the content of the programs or the program goals.

However, we do have information about the culture towards excellence in all countries. We first summarize these results for the three clusters of countries. Then we will compare the selectiveness of the education system in general and university admission in particular throughout the 11 countries.

15.1.1 The Benelux Countries

Starting in the *Benelux*, we have seen that all Benelux countries share a system of relatively unrestricted access to higher education. In *the Netherlands*, all research universities and most universities of applied sciences have set up one or more honors programs for their students over the last 20 years. Government subsidies through the national Sirius Programme have supported this development. This has led to a rich landscape of honors programs, with different aims, objectives, and results. Programs have established themselves firmly in most HEIs. Programs at 14 research universities and 25 out of 37 universities of applied sciences were discussed.¹ As Sirius subsidies have ended in 2014, HEIs are now looking for new ways to finance their honors education.

¹**Note:** The private Theological University of the Reformed Churches Kampen (TUK) was added as 52nd Dutch HEI.



Map 15.1 Honors programs in European higher education, 2014

In *Belgium*, the education system is not governed at the national level but by the Flemish-, French-, and German-speaking communities. Our findings suggest that focus on excellence is stronger in the Flemish community than in the French community. In both communities, it is hardly supported by policy or funding. Honors education in Belgian HEIs has started to develop in recent years, mostly in Flanders, where they have taken Dutch programs as an example. In total, we found six programs at four universities out of 11 Belgian universities in total.

Luxembourg is a small country with only one university, founded in 2003. Education is shaped by multilingualism and an international focus. We found no honors programs.

15.1.2 *The Nordic Countries*

Moving to the *Nordic countries*, we see a strong egalitarian tradition. Common heritage, culture, and educational tradition lead to a comparable view towards excellence. In all five countries, education is offered free at all levels, including higher education; and compulsory education is organized in only one type of school (single-structure education). In spite of the strong egalitarian culture, higher education admission is usually restricted. Selection is based on grades or an entrance exam, sometimes combined with other criteria.

In *Denmark*, the Nordic egalitarian tradition is strong, but attitudes towards excellence have changed in recent years. In the early 2000s, the government started to prioritize talent development. Focus has mostly been on creating provisions for secondary school children, and for master students. There are also interesting programs linking secondary and higher education. Until recently, there was little development for excellent undergraduate students. However, programs are now in place at six HEIs (out of 16). A new law creates more legal room for talent development at all levels. Finally, the Nordic Talent Network uniting researchers interested in talent support and excellence in education was founded in Denmark in 2013.

In *Norway*, providing equal opportunities is a central thought in education policy. This principle has led to a system where differentiation according to academic ability is effectively prohibited by law, frowned upon by society, and thus virtually nonexistent. No honors programs were found at the country's 18 universities and specialized university colleges. However, recent developments including a new government, worrying PISA results, and changing opinions in the other Nordic countries might lead to a change in this situation in the near future. Programs to support Centers of Excellence in research and education are already in place. So far these programs focus on the identification of excellent institutions and not on excellent students.

Sweden has a very egalitarian culture and this is reflected in its education policy. There is hardly any differentiation, except in the system of private schools that exists alongside the state education system. An important development is that Swedish results in PISA have steadily declined. In the 2012 survey, Sweden reached the lowest scores of all European OECD countries. These worrying results will probably lead to change in the education system in the near future and might lead to a more welcoming approach to excellence initiatives. Some experimental initiatives in upper secondary education were found, but no honors programs at the 31 higher education institutions.

Finland's education system served as an example to many countries in the last decade, because of its high scores in international reports such as PISA. Primary and secondary education teachers are highly educated, and schools are well organized and include options for talented students. Entrance to higher education is very selective. At HEIs, honors programs are still rare. We found three small-scale programs at 14 Finnish universities. Finland was surprised by relatively disappointing results in the 2012 PISA report. This has led to a discussion about education policy, but not to major changes yet.

Finally, *Iceland* is still recovering from the massive blow in 2008, when the banking system collapsed and economic and political unrest followed. Focus has been on getting the country back on track. Education is deemed very important by tradition, but especially in this situation. The small higher education sector with seven institutions has recently been reformed. Special programs for talented students have not (yet) been developed.

15.1.3 The German-Speaking Countries

The *German-speaking countries* of Germany, Austria, and Switzerland are federal states. In the school system, children are streamed according to academic abilities at an early age. Provisions for talented and gifted children in primary and secondary education are present, sometimes inside the school system but mostly alongside. These provisions are supported by nationwide organizations such as ÖZBF in Austria. Another feature found throughout the German-speaking countries is the role of private foundations in the sponsoring of individual talented youngsters. Sometimes these foundations also organize programs for “their” talents as a group.

Germany has an extensive network for support of talented children and students. This is mainly organized in individualized support. In higher education, it works mostly through grant programs, which are at least partly financed by private foundations. In recent years, both companies and students themselves have started to form online communities and organizations focusing on providing opportunities to excellent students. Another important development is the “Excellence Initiative” for research, which started in 2005. This highly successful program has brought the concept of excellence to the university system, generated a lot of attention, stimulated research, and led to a culture change in the universities, which are now more focused on competition. The development of honors programs differs regionally and is somewhat limited by legal restrictions, although some universities find creative solutions for this problem. Among the 110 German universities, 17 universities with honors programs were identified. The state of Bavaria is a front-runner, with the Elite Network of Bavaria which includes eight universities running honors programs.

In *Austria*, excellence in education is a subject attracting much attention in recent years. The influential Austrian Research and Support Center for the Gifted and Talented (ÖZBF) has released different articles and reports aimed at a systemic and inclusive approach towards education for the gifted and talented, and this has found its way into politics. However, focus so far is mostly on children in primary and secondary schools. This includes a focus on giftedness in different teacher education programs. Programs in higher education are still rare: we identified four programs at three universities (out of 22). This might soon change, as different players involved in honors-related subjects do see the need for the development of honors programs in higher education. This process is influenced by the rapid growth of the higher education sector: between 2002 and 2011, the number of Austrians in tertiary education increased by 55 %.

Finally, the country of *Switzerland* is a patchwork: four languages are spoken, 26 cantons each have their own education system, and the government model is complex. Provisions for talented and gifted students in primary and secondary education are well developed and stand in a relatively long tradition. There is a focus on giftedness in research and in teacher education. Honors programs have not yet been developed at the country's 21 HEIs, but recent developments indicate this might change in the near future.

15.2 Talent Provisions Throughout Education Systems

Having indicated how the culture towards excellence in all countries can be characterized, we now compare two aspects that are relevant for the development of honors education in a certain country: first, the provisions for gifted and talented young people throughout the education system and, second, the selectiveness of higher education entry.

We see a relatively clear picture when we look at the development of special schools or classes for talented pupils in compulsory education per country, as is summarized in Table 15.2. Reading each country's entry from left to right, we move through the education system.

Table 15.2 Provisions for talented and gifted students and selectiveness of education system per country, overview 2014

Country	Compulsory education: special schools or classes ^a	Compulsory education: legislation (2009) ^b	Selectiveness of education system at age 15 ^c	Selectiveness of higher education entry
Austria	Yes	Yes	High	Low
Belgium	Yes	Mixed	High	Low
Denmark	Yes	Yes	Low	Medium/high
Finland	Yes	No	Low	High
Germany	Yes	Yes	High	Medium
Iceland	No	No	Low	Low/medium
Luxembourg	No	?	High	Low
Netherlands	Yes	Yes	High	Low
Norway	No	Yes	Low	Medium/high
Sweden	Experimental	No	Low	Medium/high
Switzerland	Yes	Yes	High	Low

^aThis refers to special schools or classes within schools for talented or gifted students

^bThis refers to special legislative measures for talented and/or gifted students. Source: European Agency for Development in Special Needs Education (2009)

^cThe age of 15 was chosen for this indicator because this is the highest age at which education is compulsory in all countries in this book and also because the often-referred-to PISA report assesses 15-year-olds

In most countries, such schools or classes have developed, with the exception of Norway (which forbids permanent differentiation according to academic ability by law) and the small countries of Iceland and Luxembourg. Legislation for talented or gifted students is in place in all countries except in some Nordic ones, with a strong egalitarian tradition.

We see that countries differ in the degree and timing of selectiveness, but they all select students at some point. In the Benelux countries, first selection takes place early. For example, in the Netherlands, pupils are divided in three main types of secondary education around the age of 12. Pupils then continue towards the national exam at the end of secondary school. If they pass this exam at the vwo level, they can enter most study programs at the university level. With some exceptions, programs only have general admission guidelines and no fixed number of students.

All the Nordic countries have a low level of selectivity at age 15, as they offer single-structure compulsory education. In contrast, selectiveness of higher education entry is medium or high in these countries.

15.3 Selectiveness of Higher Education Entry

We now move to the second aspect: the selectiveness of higher education entry. This can be a very relevant factor for the development of honors programs and is therefore worth a closer look. We have chosen a number of indicators about the selectiveness of higher education entry. Results are shown in Table 15.3.

Table 15.3 Selectiveness of higher education entry per country, overview 2014

Country	Most used way of entry ^a	No. of studies with restricted entry	Restrictions set by	Selection criteria	Examples of restricted/most competitive study paths
Austria	Secondary school diploma	Few	Ministry or HEI	Entrance exam	Medicine, veterinary medicine, dentistry, psychology, journalism
Belgium	Sec. school diploma	Few	Community ministries	Admission test	Dent., med., vet. med., physiotherapy
Denmark	Sec. school diploma	All (in practice, most)	HEI + ministry	Highest exam GPA qualifies	Med., psych., business administration

(continued)

Table 15.3 (continued)

Country	Most used way of entry ^a	No. of studies with restricted entry	Restrictions set by	Selection criteria	Examples of restricted/most competitive study paths
Finland	Entrance exam	All	HEI + ministry	Entrance exam grades, highest qualify	Psych., education, med., vet. med.
Germany	Sec. school diploma	Most (over half) ^b	Federal ministry or Länder ministries or HEI	Various (set by HEI), often based on grades and waiting time	Med., vet. med., dent., pharmacy
Iceland	Sec. school diploma	Some	HEI	Set per study, usually entrance exam	Med., law, economics
Luxembourg	Sec. school diploma	Some	HEI	Depends on study (grades, interview, motivation)	n/a
Netherlands	Sec. school diploma	Few	Ministry or HEI	Exam GPA, weighted draw, criteria set by HEI	Med., vet. med., dent., journalism
Norway	Sec. school diploma	All (in practice, most)	HEI + ministry	National point system, mostly based on grades	Med., dent., psych.
Sweden	Sec. school grades + national admission test	All (in practice, most)	HEI + ministry	Grades, test, criteria set by HEI	n/a
Switzerland	Sec. school diploma	Few	HEI	Entrance exam	Med., vet. med., dent.

Based on Eurydice (2014)

^aAlternative entry routes are available in most countries (e.g., age requirement plus entrance exam, work experience plus entrance exam, etc.), but we focus on the “regular” path from secondary to higher education. Arts and sports study courses are excluded. They have restricted entry in all countries

^bOnly applies to universities; for Fachhochschulen, different admission procedures apply

We see that student numbers are restricted to some extent in all countries. However, in the Benelux and the German-speaking countries, the restrictions only apply to a few study programs, usually including medicine and related disciplines. The Nordic countries generally restrict entry to all programs by limiting the number of student seats available. In Denmark, Norway, and Sweden, not all student seats

in all programs are filled, but it can be very hard to get into popular programs. Selection is coordinated nationally and based on exam GPA (Denmark), a point system mostly based on grades (Norway) and a system based on grades, a national test, and other criteria (Sweden). Finland is exceptional: here, a national entrance exam is taken for every study program and admission is based on these exam results. Competition for places in popular programs is fierce.

In this chapter, we compared the provision of honors programs at 303 higher education institutions in eleven European countries. Overall, we see a trend of more provisions for talented and motivated students. While there are many differences between countries, there are also similarities within the clusters of countries, suggesting that a similar language and/or culture produces a comparable view towards excellence. In most countries, attitudes and culture become more supportive of excellence. However, only a fraction of the four million students attending those HEIs is participating in honors programs. So, more focus on talent development and more provisions for honors education are needed if we want to educate those talented and motivated students to their full potential. In the next chapter, we will discuss our results and the implications of our findings.

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Chapter 16

Perspectives on Talent Development in European Higher Education

The time has come for a sustainable and structural approach that leads to a change of culture in education. I strive for an ambitious culture of learning, for a challenging education. We cannot be satisfied with sufficient grades, always getting better is the norm. (Dutch Deputy Minister of Education Sander Dekker in a letter to parliament; Rijksoverheid 2014, p. 11, own translation)

In the Netherlands, where this study originates, quite an extensive infrastructure exists to provide talented and motivated students with extra options to work on their personal development. For the national government, talent development is a priority. Most Dutch HEIs have honors programs, and the nationwide Sirius Programme specifically focuses on this subject. Moreover, scientific research on honors programs has been conducted in the Netherlands since the late 1990s and has influenced the development and design of programs and their embeddedness in the wider society. Research has focused – among other things – on the educational philosophy behind honors programs, its effects on both the participants and on regular education, the culture of honors education, the didactics of honors educators, and the relationships between honors education and future professional development (Wolfensberger and Pilot 2014).¹ In the Netherlands, excelling as a student is no longer an individual hobby; it has now become an institutionalized possibility (*ibid*).

Good honors education is dynamic and ongoing. Honors educators are usually very open to new ideas and interested in trying out new things. Over the last few years, Dutch honors educators and the Sirius Programme increasingly looked across the Dutch borders for inspiration and cooperation. Questions came up about honors programs and excellence policies in other countries. The main questions for this book were: Why and under what conditions are honors programs in higher education developed in 11 northern European countries? And what is the current situation regarding talent development and excellence in those countries? To answer these questions, we reviewed the special provisions for talented students at 303 higher

¹A short overview of Dutch research on honors education and honors programs is provided by these authors.

education institutions in 11 countries, with almost four million students altogether. We described the culture towards excellence in all countries, as well as government policies on the subject of excellence in education. We identified key players in the field of excellence and made an overview of local terminology. Interviews with key persons completed the picture.

In this chapter, we discuss our conclusions. We explore the ideological and institutional factors that explain the development of honors programs. Finally, we discuss the implications of our findings. One thing is immediately clear: research on provisions for excellent students in higher education in Europe is scarce and further research is definitely needed to get a complete picture.

16.1 Five Basic Conclusions

Our main goal in this book was to explore the development of honors programs in 11 European countries. As this is a first structural inventory of such programs, we did not quite know what to expect. We tried to find as many programs and as much information on talent development as possible. Because of the enormous amount of information that became available, we had to limit our search. We decided not to include talent development programs in sports and arts education, as this type of education deserves special attention for its specific focus on talent development in curricula and pedagogies.

Looking at the general picture in the 11 countries in this book, we can draw five basic conclusions about talent development in general and honors programs in particular.

1. First, we can conclude that from the early 2000s, *talent development has been put higher on the agenda*. The culture towards talent development has become more positive and has received a place in most educational philosophies. A growing number of honors programs now exist in the 11 European countries studied in this book.
2. Second, *the Netherlands clearly is the front-runner* in the development of honors programs. All Dutch research universities and all large universities of applied sciences have developed honors education, although student participation highly varies among HEIs and is still quite low overall. In all other countries in this book, the number of programs is still limited. The Dutch experience also shows that, generally speaking, research universities are the first HEIs that develop honors programs, later followed by universities of applied sciences. Of course, there are innovators, early adapters, and late adapters in each type of institution.
3. Thirdly, if we move away from higher education and look at talent development in general, we see that, in many countries, *focus is on provisions for children in primary and secondary education*. In all countries, there are at least some measures or programs which give talented children opportunities to further develop themselves. Often, these provisions are based on cognitive skills. For students in higher education, these structures are not widely available. If talent development

is recognized within higher education, it is usually in teacher education. This is of course important but also very limited. From the Dutch experience, it seems honors programs in higher education start to be developed some time after programs for gifted and talented students in primary and secondary education are initiated. This may also – but does not need to – be the case in other countries.

4. Fourthly, we can conclude that *structures to support honors education are mostly lacking*. Within countries, there is little organization. So far, the Netherlands is the only country with a nationwide organization to bring honors programs from different HEIs together.² The Sirius Programme is also the only government-funded program subsidizing the development of new forms of honors education. Only in the German state of Bavaria a somewhat similar structure is found, in the government-subsidized Excellence Network of Bavaria. Most other existing networks are focused on gifted education in general and do not specifically target higher education.³ However, they may start to do so in the future. Promising developments are the increased attention for higher education in Austria's ÖZBF, while in the Nordic countries, the Nordic Talent Network is in development. A stronger support structure and network for honors education in Europe would certainly help its further development. At the moment, programs are very nationally oriented and there is no international network in honors education.
5. Finally, a *common terminology is lacking*. Giftedness, talents, excellence, high ability, honors: a myriad of terms is possible to refer to the people and programs in this book. All terms have slightly different implications, depending on the context, culture, and tradition in which they are used (see also Laine 2010 on this issue). In addition, there are also many local terms with their own meanings and political implications. Scientists do not agree on terminology either, nor on the question if talent should be defined in terms of outstanding performances or in terms of potential. This is problematic for everyone involved. In a 2006 working document about giftedness in 30 European countries, this problem was also recognized. The official terminology was even mapped, with most terms referring to variations on the words gifted and talented or combinations (Eurydice 2006). In three Nordic countries, no official definition was found whatsoever (ibid, p. 8). This is a reflection of the local culture, and it implies that terminology is politically charged. For example, in Sweden, you cannot talk about talents, and in Norway, the word elite is taboo. For research purposes, this means that programs can be hard to find. To put it positively, it provides a challenge, and gains can be made if agreement is reached on the use of terminology among researchers and/or policy makers.

While the last two conclusions indicate that there are great challenges for the further development of honors education, we are positive about the future. This positive outlook is partly a result of the creation process of this book. Although

²Outside Europe, the National Collegiate Honors Council (NCHC) is a strong and well-established network in the USA.

³International networks focused on gifted education, such as ECHA, are present in all countries in this book, although their influence differs.

developments are sometimes still very limited, enthusiasm for honors education has spread over the Benelux, Nordic and German-speaking countries. In all countries, contacts were very willing to help the researchers and learn from “honors experiences” in other countries. Almost all HEIs we approached gave us information about their provisions for talented students. We found many individuals who clearly recognize the need to provide talented students with the best possible education and are willing to put a lot of effort into the realization of their vision. Such pioneering individuals are central to the development of honors education. At the same time, policy makers in HEIs and governments in many countries have also started to focus on talent development and they see the possibilities of honors education. Among all groups, widespread interest in the results of this explorative and comparative research project was shown. We think this book clearly fulfills the need for a structured overview of provisions for talented students in different countries.

Keeping our basic conclusions in mind, we now analyze the current development of honors programs throughout the Benelux, Nordic and German-speaking countries in more depth. We also look at what we can expect for the future. Before starting our main analysis at the national level, we first need to make some remarks about scale and the supranational context.

16.2 Scale and the Supranational Context

Geographical questions of scale and networks turn out to be very relevant for the development and characteristics of honors programs. This is especially clear if we look “up” from the national scale to the supranational context in which these programs are developed. Four elements are important: research and rankings at the global level and the Bologna Process and Horizon 2020 at the European level.

16.2.1 Research

First, HEIs and especially research universities operate in the global field of scientific research. This is a field with its own rules about the appreciation of excellence. Basically, the best research is published in the most-cited journals. Countries wishing to score well in this international playing field have to abide by the system rules. Some countries develop programs to improve their relative position. Examples are the German Excellence Initiative and the Norwegian Center of Excellence program. These programs can have spin-off effects into the education side of HEIs. Both in Germany and in Norway, this has been the case: a few years after the introduction of an excellence program on the research side, a similar program focusing on education was introduced. At the same time, the international “rat race” in scientific research can also lead to less focus on education among top scientists. These top scientists only have limited time and have to choose how to spend this. Their choice is influenced by what their employers, the HEIs, appreciate. If emphasis is on research, they might see education as less important.

16.2.2 Rankings

A second element from the global context influencing the development of honors programs at the national level are educational achievements in international rankings. Unsatisfactory results on such rankings can be a strong incentive for making structural changes in the education system, including the development of programs focusing on excellence.

University rankings, such as the Shanghai Ranking (ARWU 2013) or the Times Higher Education World University Rankings (2014), are mostly focused on research achievements (and therefore subject of much debate). The rankings are not directly related to the development of honors programs, but indirectly, there can be a link. Again, we refer to the German and Norwegian programs as examples. In Germany, one of the official aims of the Excellence Initiative was the creation of “globally competitive universities.” In Norway, the Center of Excellence in research program was developed first, and subsequently, a Center of Excellence in education program was developed as a spin-off. One of the “side effects” of both initiatives is that talking about excellence has become more common throughout the university system. This discussion can take many directions, not necessarily leading to development of honors education.

Another relevant international ranking is the PISA report, recording 15-year-olds’ achievements. Earlier reports have been an incentive for major changes in the education system in, for example, Norway, where teacher education was restructured. The PISA 2012 report, published in late 2013, has come as a shock to a number of countries. Sweden scored particularly low and the call for change is very loud there. More focus on differentiation and the development of excellence programs could be a way forward.

16.2.3 Bologna Process and Horizon 2020

Thirdly, a major development throughout higher education in Europe is the Bologna Process. This process to harmonize higher education standards has led to changes in the educational structures in many European countries since 1999. Sometimes the opportunity was seized to really “shake up” the system, while in other countries, changes were limited. National traditions remain strong and relevant to understand national higher education systems. The relationship between research universities and universities of applied sciences is still very different among the countries in this study. For example, in Iceland, there is no difference made at all. On the other hand, Norway has a complicated system including university colleges, specialized university colleges, and full universities. Language can also lead to confusion. In Sweden, for example, many HEIs call themselves *högskola* in Swedish but university on their international webpage.

Although the impact differs, the Bologna Process is important in all 11 countries. Among other things, it has facilitated an easier flow of students between European countries, for example, by the introduction of the uniform ECTS credit system. Many study programs now have an international appeal. However, HEIs offering honors programs do not seem to fully use the possibilities in the Bologna Process. Offering honors programs could be one way for HEIs to distinguish themselves on the international student “market,” but this is hardly done. Most honors programs explicitly focus on “local” students and are conducted in the local language. In many cases, an English-language webpage is not available or very limited.⁴

Some programs explicitly mention their international focus, for example, the “Liberal Arts” style honors colleges in the Netherlands and Freiburg (Germany), which offer their study programs in English. Another example is the University of Southern Denmark’s Research in Corporate Communication program. We also found that certain fields are very international in nature, such as business-related studies. Programs are usually conducted in English and many foreign students are enrolled, either as full-time or exchange student. National borders are not very important for such study programs, which is also shown in the development of the international CEMS-MIM program (discussed in Chap. 3).

Such examples show that the national scale is not automatically the only relevant scale for analysis of honors education. Instead, developments at different scales can play their roles simultaneously.

Another development at the European level is the increasing importance of EU programs for research funding. In the new Horizon 2020 program, around 80 billion euros is available for the period 2014–2020. Institutions that have clear strategies to operate in an international playing field have better chances to attract funds from this program. Horizon 2020 focuses strongly on rewarding excellent research. Great opportunities to connect this to excellent teaching and involve excellent students in international networks are present here.

16.3 Factors at the National Scale

Still, every talented student starts in a certain national education system. For the moment, this remains the most important context in which honors education takes place and therefore a logical starting point for analysis. So to analyze the development of honors programs, we now return to the factors that influence this in specific national contexts, as identified in Chap. 2 (see Box 16.1). These factors could be identified as either more ideological (factors 1–3) or more institutional in nature (factors 4–6). The importance of international rankings (factor 7) has already been discussed above, and we will discuss the role of innovators and pioneers in the next chapter.

⁴ See list of key links and contact details for honors programs in Appendices 2 and 3.

Box 16.1: Factors Influencing the Development of Honors Programs in a Specific National Context*Ideological factors:*

1. Culture towards excellence
2. Political views towards excellence
3. Educational philosophy

Institutional factors:

4. Structure and selectiveness of education system
5. Competition between institutions
6. Labor market conditions
7. National results in comparative research

Other factor:

8. Innovators and pioneers

16.4 Ideological Factors

Approaches towards excellence are very dependent upon national culture. An atmosphere where people involved in these programs are proud of their achievements and do not feel the need to downplay their involvement in order to “fit in” is crucial for long-term positive outcomes. As Hungarian researcher Janos Györi concluded from two volumes of studies of talent support programs throughout the world: “the best talent education method is to provide a talent-friendly social space” (2012, p. 227). A culture where talent is valued and appreciated is very important for the success of talent development programs.

For the European countries in this book, this is not obvious. We have seen that they all have an egalitarian tradition to a certain extent, although its origins and its current strength are very different. In some countries, culture towards excellence is ambivalent and developments may seem contradictory at first sight. We discuss the ideological factors per cluster of countries to make this clear.

16.4.1 The Nordic Countries

The egalitarian tradition is especially strong in the Nordic countries (Denmark, Norway, Sweden, Finland, and Iceland). It is expressed in the Law of Jante with its basic saying “you are not to think you are special or that you are any better than us.” People from the Nordic countries referred to this “law” so often and so spontaneously that its importance should not be underestimated. It implicates that the

individual cannot stand out from the group and therefore any reference to excellence has to be institutionalized as a group measure. There are exceptions of course: areas where it is unavoidable to distinguish individual talents. Appreciating excellence in sports and arts is well accepted in all countries presented in this book. Even in very egalitarian countries such as Sweden and Norway, entry to study programs in the arts is based on a very individual-based admission procedure.

While the selectiveness of higher education also extends to other study programs in Nordic countries, the individual approach is restricted to the arts. For other programs, a strict selection on the basis of exam results is made. This seems contradictory to the egalitarian culture at first sight but can be understood when approached from an institutional point of view. Only a limited number of student seats are available in the institutions, and therefore, a way has to be found to find the right group to fill the seats. Selection is thus an institutional measure. Using grades is seen as the most honest way, giving equal opportunities to all. The institutionality of this approach is also shown by the fact that, generally speaking, selection is not left to the HEI's discretion, but coordinated nationally through a special agency.

While the egalitarian tradition is strong, slow changes in the culture are present and were also referred to by the interviewees, especially in Denmark. In this country, honors programs have developed in recent years. Several interviewees have suggested that the other Nordic countries are slowly following the Danish example in this respect. They point to different outside developments that cause this slow culture change, like the impact of globalization, competition from other countries for the best researchers, and achievements on international rankings, as discussed above.

16.4.2 *The Benelux*

While an egalitarian philosophy is dominant in the Nordic countries, the Benelux countries tend more towards an equal opportunity philosophy. This implies that more emphasis is placed on meeting the individual needs of different students. Development of provisions for talents is more likely.

In the Netherlands, political support for talent development in education has become broad and stable in recent years. This could be seen as the result of a culture change, which has been set in motion around the time of the development of the first honors programs in the 1990s. One explanation for the early development of honors education in the Netherlands might be that ties between the Netherlands and the USA are traditionally strong. Detailed research about how exactly honors education has spread from the USA to the Netherlands and throughout Europe could shed more light on the relevant networks that have enabled this trend.

In any case, talent development has established itself as a stable theme in Dutch government policy in recent years. The Sirius Programme with subsidies available to start honors programs ended in 2014, but it has always been clear that this

program was a temporary measure. The main goal was to stimulate honors education to take a structural place in the Dutch higher education landscape. How this will take shape exactly is still subject of debate. Meanwhile, the Ministry of Education remains focused on excellence. It has announced new measures to foster talent in compulsory education (Rijksoverheid 2014).

Belgium is slowly following the Dutch example in the development of honors education. Here, the initiative is mostly with the individual HEIs, and in contrast with the Netherlands, there is hardly any government support. This may be caused by the political organization, with education in the hands of the Flemish- and French-speaking communities. These governments do not take a clear leading role in the development of new educational policies towards excellence. However, culture change is set in motion within HEIs, and more programs may follow soon.

16.4.3 The German-Speaking Countries

In the German-speaking countries, culture towards excellence is ambivalent. It is also politically sensitive because references to very problematic historical events are easily made: both to the Nazi era, with its Übermensch ideas, and to the GDR, with its extensive doping-based talent development programs in sports. Such historical events have led to such sensitivity around the subject that, generally speaking, support measures have to remain at the individual level.

Throughout the German-speaking countries, individual talent support programs through private foundations are well accepted. There is a certain culture of excellence appreciation, but this is not institutionalized very strongly in the development of programs for groups of talents at HEIs.

However, this culture is also changing. In recent years, focus on excellence has also been given a significant boost because of the successful “Excellence Initiative” in German research. Talking about excellence has become more common and has also spread towards the education side of universities. This applies to both Germany and Austria. Specifically for Germany, the leading role of foundations supporting talents is strongly embedded in the culture, leading to a very specific set of actors around the concept of excellence. In Austria, the role of foundations is also important, but not as strong. Here, it is worth noting that a certain role for the private sector in honors education seems acceptable within the culture. In addition, the general climate towards excellence seems positive, with the national foundation ÖZBF playing an important role.

In Switzerland, developments are slightly different. The sensitivity around the concept of excellence is not felt as strong. Talent development programs are well accepted in compulsory education.

Interestingly, this does not necessarily spread to the higher education sector. There are no HEIs with honors programs yet.

16.4.4 Countries Compared

Overall, we can conclude that while there are significant differences between the countries, the ideological trend is towards less egalitarianism and more focus on excellence. These two trends are related, but they do not form the two sides of the same coin. The move away from the egalitarian philosophy is accompanied by a move towards an equal opportunity philosophy. In this philosophy, there is more room for the individual needs of students and therefore also for talent development.

The increased focus on excellence at the national level can thus be seen as one of the consequences of the move towards an equal opportunity philosophy. At the same time, there are more developments that can explain the increased focus on excellence. For example, this has often been linked to developments at the supranational level, such as globalization and the need to distinguish oneself in an increasingly open labor market. This has led political parties with different ideologies to realize that many talent development measures are in fact – in the words of Danish talent development expert Stefan Hermann – “generally speaking good things to do if you want to improve the quality of education.”

It is tempting to conclude that the process of slow culture change and the accompanying development of honors programs in the Netherlands from the early 1990s is a blueprint for the other countries in this book. Some developments suggest it is true. For example, in Denmark, the first development of honors education started around a decade later than in the Netherlands, and Denmark now seems to be where the Netherlands was a decade ago. Other Nordic countries are a number of years “behind” Denmark in this respect. However, the situation is not that simple. Institutional factors (discussed below) are also relevant, and development is also very dependent upon local culture, tradition, politics, and the attitude towards outside influences. Development also depends on the specific local relationship between research and education within HEIs. Moreover, honors education was also “used” in the Netherlands to change the culture towards appreciation of outstanding performances and excellence within higher education.

In general, focus on excellence might also be related to the political coalition in power: roughly speaking, social-democratic politicians are more likely to focus on equality and less likely to approve of measures to promote excellence or elite programs. This is not always the case however, as in the Netherlands, the Sirius Programme was introduced under a social-democratic Minister of Education.⁵ Countries differ with respect to how politicians act and how stable their views of excellence and support for accompanying programs are. Honors programs can reach stability once their existence is welcomed by most or all major political parties and they have taken a stable place in the educational structures of a country.

This brings us to the institutional factors influencing the development of honors programs.

⁵ Minister Ronald Plasterk (PvdA, social-democrats) awarded the first Sirius subsidies in 2009.

16.5 Institutional Factors

The level of differentiation in primary and secondary education, the selectiveness of higher education in general, and admission requirements in particular are all relevant factors for the development of honors programs. But there is no simple relationship between these institutional factors and the development of programs. We already showed this in Chap. 15, when we discussed the differences in university admission and the selectiveness of the education system in general in relation to the development of honors programs. The discussion of three examples of simple – seemingly logical – statements will further illustrate this.

1. Countries with an educational structure where differentiation is common might be more inclined towards the development of honors programs. Do countries with early differentiation between children in secondary school have more honors programs than countries with a single-structure compulsory education system? Not necessarily so: there are many programs in the Netherlands (with early differentiation), but also quite a few in Denmark (with single structure). And in Switzerland (early differentiation), there are none.
2. Growth in student numbers makes the student population more heterogeneous and might be one incentive for the increasingly felt need among HEIs to sort out the most talented and motivated students for honors programs. Do countries that experience quick growth in the number of students in higher education develop more programs? Not clearly so. The Netherlands and Austria are two countries with high increase in tertiary education participation (over 40 % in the last decade). Indeed, these countries both have programs. But in Finland, where student numbers have hardly grown (although applications have gone up) and thus university entry has become even more selective, some programs have also developed. And in Iceland, Switzerland, and Luxembourg, with high growth percentages, there are no programs.
3. A strict selection for a regular study program could decrease the “need” for an honors program, as – put bluntly – the elite has already been selected. If anything, evidence suggests the opposite. In Denmark, the admission requirement for a B.Sc. in International Business at Copenhagen Business School is extremely high (GPA of 11.9, where 12 is the maximum). But at this particular study program, two honors programs have been developed specifically to further sort out “the best of the best.” The same is true for the Center of Excellence program at the WU in Vienna (Austria). For the general master program, the best students are selected. Then the best of those are selected for the honors program. The Finnish university system poses most restrictions to university entry among the 11 countries studied. Here, being in a university might be seen as “sufficiently selective.” While development of honors programs is indeed very limited in Finland, there are some programs available.

These examples show that the relationship between the organization of the education system in general and the development of honors education is complicated.

However, these institutional factors do set the margins within which honors education can develop. Besides, there are also other institutional factors that can have a direct or indirect influence on talent development in general and honors education in particular. We discuss four factors in more detail: progression in education, recruitment, economy, and politics.

16.5.1 Progression in Education

The need to develop honors programs might also be related to the national system of progression in education. We have seen that in the countries where the progression rate of bachelor graduates into master programs is highest (Denmark, Austria), the development of honors programs is also strong in recent years. Further research into a possible relationship between these two facts could be very valuable. One possible explanation could be that in countries where continuing into a master program is “normal,” the bachelor program might be a bit more general and less focused. Honors programs could then fill the “gap” that exists for students who want to deepen their knowledge. Possibly, students also feel more need to distinguish themselves.

We have found honors programs in both the bachelor and master phases of education. In the Dutch experience, the first programs were developed in the bachelor phase, later followed by the master phase. Other countries have different experiences. In Denmark, government support facilitated the development of elite master programs, before bachelor programs were present. In the German Excellence Network of Bavaria, programs for groups of students are focused on the master phase. The first Austrian honors program, the Center of Excellence at WU Wien, is also for the master phase. However, most other programs are for bachelor students. The picture is thus varied and calls for more research. What are the differences in aims and content of programs in the bachelor and the master, and why are they developed first at a certain level in a specific national context?

Another interesting research topic would be the possible relationship between the average age of students at HEIs and the development of honors education. In some Nordic countries (Denmark, Iceland), students traditionally enter higher education at a relatively high age. They have more “life experience” before they start their studies, and this may influence their choice to enter honors education.

16.5.2 Recruitment

Both the system of university recruitment and the relevant scale of recruitment seem relevant for the development of honors programs. Some study programs have a clear international focus, are conducted in English, and explicitly recruit students internationally. In such internationally oriented programs, development of honors programs might be more likely. For example, in international business studies, a kind

of international honors network has been set up in the CEMS-MIM program. More research into such programs could shed valuable light on the different scales of recruitment that can be relevant for honors education.

At the national level, funding of education institutions is based on student numbers, which means there is an incentive to attract more students. Such competition can be an incentive to develop honors programs. HEIs can distinguish themselves by offering an honors program and some institutions explicitly name this as a reason for doing so. On the other hand, most Nordic countries have a national system coordinating the admission of students to higher education. Students can apply for the program of their choice, but, for example, in Norway, they can also be placed at other universities. This high level of national coordination and limited number of student seats implies less competition between institutions.

Some programs are also explicitly set up with a focus on recruitment for an academic career: participants are obvious candidates to become Ph.D. students. This is especially strong in Germany, where a number of programs in the Elite Network of Bavaria explicitly mention these intentions. In the Netherlands, the picture is varied between HEIs. Some honors programs explicitly focus on research, but in many universities, there are also (regular) research master programs to identify future Ph.D. students. In some of these cases, the corresponding “non-research” master programs have an honors program in place to offer the most talented students extra opportunities. Often these programs are focused on leadership.

Apart from the recruitment process of the HEI in general, there is also the recruitment process of the honors program in particular. Many different selection methods are used here. Often, grades play a certain role, but motivation is also included in many admission schemes, in the form of motivation letters and/or interviews. Sometimes other factors such as commitment or community service are also taken into account, and a lot of programs include a possibility of “self-selection”: motivated students who are not invited to the program can still apply. These procedures are often well considered, intensive, and intricate. Labor-intensive admission schemes can come under pressure in times of budget cuts, which leads to a risk of selection based just on grades.

16.5.3 Economy, Business, and Financing

Economic developments in general and labor market conditions in particular also influence the development of honors programs by HEIs. In addition, they influence the choices that students make. The link between the labor market and HEIs is strong in the German-speaking countries. This also shows in honors programs: different HEIs have developed programs that explicitly focus on the careers of the students involved.

However, HEIs are not the only institutions focusing on talent development for economic reasons. Private foundations and companies and also students themselves increasingly take their own initiatives. Three striking examples are the StipendiumPlus association in Germany, uniting 12 foundations offering financial

and other support to talented students; the Videncenter in Denmark, a building financed by a private investor, where talent development programs are coordinated and talented students can be received; and the sponsors who have a prominent place in Austrian programs, such as WU Top League and Center of Excellence. In addition, students from Germany and Austria have set up their own online “talent networks” or have become members of networks sponsored by private companies.

The growth in student numbers in recent years, especially in countries like Austria and the Netherlands, also has implications for the labor market. Competition is fiercer, and in these circumstances, it is very important for students to show something extra on their CV. One way of doing so is by participating in an honors program.

Private companies see the need to recruit the most talented students in an early stage of their career. This process has been called the “war for talent” in the early 2000s. While there is less reference to “war” since the economic crisis broke out, many companies still see the need to put a lot of effort in talent recruitment. Actual participation of companies in education (including honors education) is subject of debate. Some people want to protect the education process from commercial influences, while others stress the added value of business involvement in preparing students for “real-world” careers. We have seen that discussions around this issue are especially fierce in Sweden, where “free schools” run by companies have come under fire in the media and politics after some cases of bankruptcy of schools. In Austria, there are examples of programs with explicit business involvement, also in the content of honors education. Especially in the current context of government budgets under pressure, we expect that more HEIs will start to look to the private sector if they want to set up an honors program.

The cost of the development of honors education, in relation to its added value, is of course also very relevant for HEIs. Added value can be defined in different ways. We have not included this monetary factor in this project but recommend to investigate it further in a more in-depth research.

Another important factor related to finance is the financial cost and/or support for excellent students in honors programs. Here, we see different countries taking different directions. In Germany and Austria, there are very low tuition fees, and in addition, special grants and stipends are available to talented students. Particularly in Germany, these can be substantial amounts of money, enabling students to concentrate on their (honors) education. A contrasting situation is found in the Netherlands, where the government has launched a plan to ask a double tuition fee for honors education (compared to regular education) in a situation where regular tuition fees amount to almost 2,000 euros per year. The effect of financial measures on student’s willingness to participate in honors programs is unclear.

16.5.4 Politics

We have discussed political views above in our review of ideological factors, but there is more to politics. The political organization of the education system is also very relevant for the development of honors programs.

One example showing this relevance is the question “where” in politics the issue of talent development in higher education is put. A strategy for talent development can be part of general education policy, part of special or special needs education policy, or a separate education policy area in itself. It can also become part of another, noneducational policy area, for example, equal opportunity, anti-discrimination, or emancipation. The “location” of a policy issue is often related to financial questions. For example, the Dutch Deputy Minister of Education recently wrote a letter clearly situating talent development in primary and secondary education as part of “special education” policy (Rijksoverheid 2014). From now on, this is therefore also the policy area where financing for these programs must be sought.

The organization of the political system can also influence the possibilities of developing a coherent view on talent development throughout the education system. For example, countries differ with regard to which ministry is responsible for higher education. In some countries, one ministry is responsible for the complete education system (the Netherlands, Norway, Sweden, Finland, Iceland), while in others, higher education is governed in a separate ministry, often combined with research (Denmark, Austria, Luxembourg). In federal countries, the situation is often even more complicated. Powers are concentrated at the levels of individual states, cantons, or communities, and there is little (Germany, Switzerland) or no (Belgium) national coordination. We have seen that in Austria, there is an extensive infrastructure around gifted education in primary and secondary education, but development of honors programs in higher education is just starting. In federal Germany, we see huge differences between the Länder, with Bavaria having the clearest focus on excellence. In Belgium, HEIs are taking initiatives themselves as little is done by the different governments.

Organizational changes can occur due to political developments. Sometimes there is a sudden change of ministers or even of ministries: in Austria, the Ministry of Education, Arts, and Culture suddenly became the “Ministry of Education and Women’s Affairs” in late 2013. Political developments or changing governments can also lead to sudden policy change. This was, for example, the case in Denmark, where the financing of Elite Mater programs stopped after a government change. In Norway, the recently installed new government decided to focus explicitly on quality and promised new policy on provisions for gifted children.

16.5.5 Selection and Flexibility

We conclude this review of institutional factors with a seemingly obvious statement: you get what you select for. We have seen that in all countries, there is a moment of selection in the education process. Children are streamed according to academic ability. Often this is based on grades. The ways in which pupils are graded vary but are often based on tests that benefit students who are good at reproducing information and analyzing within the framework set by their teacher. The most creative

minds do not necessarily score well. They need flexibility to fully explore their creativity. Honors programs can offer them the challenges they need. Often this does indeed happen, but the specific institutionalization of the education system in a national context can also leave little room for this creativity and flexibility. It is then up to creative HEIs and individuals to find the room they need and attract the “right” students, according to the mission of the honors program.

16.6 Concluding Remarks

For the first time, an overview of honors education in northern Europe has been presented. We have found many interesting, striking, and unexpected results. The ten results the research team found most striking are summarized in Box 16.2.

Generally speaking, the results from this book can be of interest for politicians and policy makers, as honors education appears to be a good outlet for talent. In addition, (honors) students looking for comparable honors courses around Europe to obtain an international experience get insight in the opportunities at various institutions.

However, this first overview also demonstrates that we are only at the beginning of an important silent revolution towards excellence. It is obvious that there are many things we still don’t know. Therefore, we offer some alternative perspectives and do some suggestions for further research in the next, final, chapter.

Box 16.2: Ten Most Striking Findings

1. *The focus on talent development.* This has become a priority in many countries and a lot of honors programs now exist in the 11 countries studied in this book. However, political volatility can still be high. A “momentum” can suddenly arise but can also quickly disappear.
2. *The surprising directions programs can take.* Programs can develop in unexpected settings and directions: examples range from a unique inter-university approach in Belgium and students running their own program in Denmark to the strong regional focus on excellence in Bavaria.
3. *The strength of private sector involvement.* Many foundations and companies support talent development. Often, they explicitly connect the program to the labor market.
4. *The focus on community building.* Informal gatherings of honors students and teachers have great added value. The importance of “community” is recognized in many programs, but focus remains within the program or HEI and its surroundings.

(continued)

Box 16.2 (continued)

5. *The lack of framework.* While there is community building within programs, there is little networking between programs. There is no international network, and the Netherlands is the only country with a national framework of HEIs offering honors programs (the Sirius Programme).
6. *The importance of culture.* Cultural ideas about excellence can be very strong. In the Nordic countries, the “Law of Jante” is effectively a cultural imperative forbidding people to stand out from the crowd. Changing a culture is a slow process.
7. *The focus on primary and secondary education.* In many countries, talent development is now focused on compulsory education, but of course, it does not stop at age 18. Interesting examples of programs linking secondary and higher education could prove inspirational.
8. *The difficulties of terminology.* A myriad of terms is possible to refer to the people and programs in this book. Terminology is often politically charged and scientists do not agree either. Discussion about terminology distracts from what honors education is really about. Practically, it can also make networking difficult and make programs hard to find for students.
9. *Successful examples paving the way.* To initiate an honors program, great obstacles need to be overcome. Successful examples offer both inspiration and possibilities to attract support. The efforts of pioneering individuals are crucial for program development.
10. *The need for flexibility.* In talent development, flexibility is a basic need. Teachers and students need freedom to design their own program. This gives room to their creativity, but it also prepares students for “the real world,” which awaits them after they finish their studies.

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⁶**Note:** Literature used to prepare this book is included on this list. Some of the entries are in local languages and have not been read completely by the researchers. Instead, they have been searched with keywords to retrieve relevant information.

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Chapter 17

Breaking the Academic Lock Step

It should not be forgotten that one of the purposes of democracy is to provide each individual with the opportunity that is best for him (...) The ideal for democratic education good enough to meet the needs of the post-war world must not be security but excellence. (Aydelotte 1944)

These words were written by American honors education pioneer Frank Aydelotte in his 1944 book *Breaking the Academic Lock Step*. He explicitly links excellence to democracy, as this gives men “freedom to be individuals.” Aydelotte developed his own honors program at Swarthmore College and then helped establish honors programs on about 100 campuses (see Wolfensberger 2012, p. 13).

The views of Aydelotte have now also reached northern Europe. In the last two decades, talent development in higher education has been set in motion here. Many interesting initiatives are now being taken in the Benelux, Nordic and German-speaking countries. This opens up fascinating new opportunities for students, educators, and policy makers, but it also poses challenges. In this short final chapter, we share our final thoughts and propose some directions for further research. First, we argue why in our view the promotion of excellence is valuable.

17.1 The Value of Promotion of Excellence

The European countries studied in this book all have an egalitarian tradition to some extent. Providing extra opportunities to talented students is not obvious in such a climate. However, promotion of excellence in education is valuable for many reasons. It has benefits for all parties involved: higher education institutions, policy makers, teaching staff, the participating students themselves, and even the country as a whole.

All countries have felt the impact of globalization over the last decades. This has many consequences. Countries feel the need to distinguish themselves and focus on areas in which they excel, in order to be strong in international competition.

Having a well-educated population in general, and in these areas in particular, is very important. The importance of evoking excellence in higher education for the market and knowledge economy is stressed by politicians and government advisory bodies. Talent development programs fit well into this picture.

Focusing on higher education, there is an increasing international orientation in HEIs. This often starts from the research side, which in many fields operates in a globally competitive environment. This international focus also spreads to the recruitment side: many HEIs attract students at the international level, offering study programs with international appeal. This already implies a focus on excellence in order to stand out from the crowd. But there are more benefits for HEIs in linking the focus on excellence in research to excellence in education. It provides opportunities to educate the next generation of excellent researchers, to use their ideas to remain at the top, and to attract the generation coming afterwards to come to this HEI. Fortunately, honors education reaches further than research-oriented programs. HEIs can design honors to educate their students in such a way that they can become excellent professionals. Conceptions of honors education then include persistence, ethical judgments, leaving a legacy, and risk-taking.

However, the conversation about the importance of equal access to honors programs for students from various social and economic contexts and different ethical backgrounds is just starting. Questions of effects of elitism and spending energy and money on the lucky few are important to raise. Expanding the horizon of students and teachers is important to all parties involved.

This brings us to the “why” of honors education and the purpose of talent development, especially in higher education. Depending on the mission of each honors program, different answers may be given. One could say that every student needs education that meets his or her needs every day. Also the talented and motivated students that are able and willing to do more than the regular program can offer should get education that brings them a step further in their academic, professional, and personal development. It is also in the national interest to have a well-functioning education system. From our overview, it has become clear that in all countries, there is differentiation in the education system at some point. Recruitment of students for arts and sports programs is very selective, and this is well accepted everywhere. It makes sense to organize the differentiation in the wider education system as well as possible, and base it on proven methods. Excellence programs may serve as a laboratory in this respect. Honors education asks for honors pedagogies and specific teacher approach. Faculty development for honors is getting increasingly important. Honors as laboratory of innovation with changeovers to regular education point out the possible positive effects of this kind of selective education for a whole institution. The efforts towards improvement in programming to promote excellence may enhance all curricula.

There are more benefits from having such laboratories of innovation in the form of honors programs. In many countries, there are heavy discussions about private sector involvement in education. This is of course partly an ethical discussion, but honors programs can offer input in this discussion by their practical examples of such involvement.

Honors programs can prepare students to become “citizens of the world,” socially engaged people willing to contribute to the solution of global issues. In our diverse and networked world, it becomes more important to teach students that they can become tomorrow’s global leaders. Developing the academic as well as intercultural competences and moral sensitivity of students becomes essential. Talented students with their above-average abilities and motivation can contribute to solutions for worldwide problems we face today, like climate change, terrorism, or contagious illnesses. International exchange regarding honors can improve education in intercultural skills, inquiry methods, and the engagement in learning endeavor.

Many companies have an interest in recruiting the best students. Many governments have strategies focusing on top sectors. Many institutions want to invest in talent. In this situation, there are opportunities for cooperation. Talent development programs seem a logical choice.

One problem in this respect is that there is still little research available about the results of honors programs for all involved. In fact, there is a lack of research about talent development programs in higher education in general. Questions on why, who, how, and how well around talent development and honors will improve the educational endeavor. In the next sections, we propose some possible approaches on this issue and identify a number of perspectives and urgent research questions.

17.2 A Long-Term View

First, we propose to use a long-term approach to analyze the development of honors programs. As this is a first overview, there is no comparative research available for the development of honors programs in higher education in Europe. Only for the Netherlands such research is available, for example, in Van Eijl et al. (2004, 2005). However, there are some data about gifted education that may explain something about the institutional context in which development takes place. In the year 2000, Persson et al. gathered data about the development of legislation and special schools or classes in compulsory education (p. 725). Results are presented and compared to the 2014 situation in Table 17.1.

From this table, it becomes clear that there are more provisions for talented and gifted students in 2014 than there were in 2000. Special legislation about gifted and talented students has been introduced throughout Germany, Denmark, Belgium, Switzerland, and the Netherlands. Special schools and/or classes are now in place in Denmark and Finland. On the contrary, in Norway, it is still difficult to have any formal differentiation. The Netherlands has also seen legislation introduced and combines this with the highest development of honors programs.

For all the programs in this book, we tried to establish the starting date. In the Netherlands, around 12 programs were already developed in 2000 (see Van Eijl et al. 2004 for an overview). From the other countries, there are only two examples of programs that started before the year 2000: the Center of Excellence program at WU Vienna (Austria) and the Bachelor in International Business Administration

Table 17.1 Provisions for talented and gifted students in compulsory education per country^a, development 2000–2014

Country ^a	Legislation, 2000 ^b	Legislation, 2014	Special schools or classes, 2000 ^b	Special schools or classes, 2014	Development of honors programs in higher education, 2014
Austria	Yes	Yes	Yes	Yes	Medium
Belgium	No	Mixed	Yes	Yes	Medium
Denmark	No	Yes	No	Yes	Medium
Finland	No	No	No	Yes	Low
Germany	Few states	Yes	Yes	Yes	Medium
Netherlands	No	Yes	Yes	Yes	High
Norway	No	No	No	No	None
Sweden	No	No	Experimental	Experimental	None
Switzerland	No	Yes	Yes	Yes	None

^aIceland and Luxembourg were not in the 2000 survey and are therefore excluded here

^bSource 2000 data: Persson et al. (2000, p. 725)

program at WHU Otto Beisheim School of Management (Germany). Of course there may have been other programs in 2000 that have since disappeared, but development was certainly very limited. We hope that in the future, this book can be of use to make comparisons about the development of honors education and the changes in climate towards excellence and talent development in higher education.

In addition, we hope that similar explorative research will be carried out in other countries throughout Europe, completing the picture of honors education in at least all European countries. However, we think a global view will be of real interest as well. More insight in honors didactics and honors programs in, for example, Asia, Arab countries, Australia, or Latin America can be inspiring for all the parties involved.

17.3 Other Perspectives

We started this book by developing our own working definition of an honors program: *Honors programs are selective study programs linked to higher education institutions. They are designed for motivated and gifted students who want to do more than the regular program offers. These programs have clear admission criteria and clear goals and offer educational opportunities that are more challenging and demanding than regular programs.*

The choice to use this definition has had a number of implications, as it shaped our perspective on the programs. In general this definition worked out well. Interviewees from different countries could work with this definition and could

point out various programs offered at their institutions, even though a common language is still lacking. However, it should be mentioned that the descriptions of clear goals is often lacking. Connections between mission statement, performance indicators, assessments, and selection are important and are not yet strongly developed. Research on those connections could evoke excellence among the honors programs. In this section, we discuss some alternative avenues that could be taken in research projects.

17.3.1 *Students and Teachers*

Our approach has focused mostly on institutions. This shows in the definition: we focus on *selective study programs linked to higher education institutions*. This implicates that we have focused on what HEIs do and what they offer: the “supply side” of honors education. However, it is also possible to start research from a different angle: what possibilities are present for individual talented students? This would also change the perspective on what governments and HEIs do and what instruments they use.

A focus on a student point of view leads to different questions. What do students themselves consider “honors”? And what do they see as part of talent development? Another important question is: what are the reasons for students to join honors education? We have touched upon this subject, but mostly in relation to economic factors and the need for students to stand out from the crowd. However, students also have more ideological or practical reasons to join a program. Also, do they see themselves as participants or as cocreators of a program? More detailed research among students could yield valuable insights in these questions. Also, it would be valuable to investigate the effects of honors teaching on students’ outcome and on their working lives as (excellent) professional, their perceived well-being, and mindset. Research on honors alumni should then be included.

A student-based approach would also place more focus on grant programs and the possibilities they present for excellent students. In addition, more would be said about the possibilities for individual students to start studying at prestigious HEIs in other countries as a way to challenge themselves and fully explore their potential.

One element that could also be researched from this approach is the role of student associations within honors programs. This is starting to develop in the Netherlands in recent years. Of course, this has implications for community building.

In short, we think a student-based approach would be a very helpful change of perspective.

In addition, we also think more focus should be placed on the role of teachers in honors education. The role of teachers is pivotal; however, faculty development for honors is in its initial phase. Also teacher education should include courses on honors education. This study gave insights that, especially in the German-speaking countries, master programs for gifted education were developed. However, honors educators may need a broader perspective.

17.3.2 A Broader Vision on Talent

In this research project, we have paid little attention to the definition of talent and we have largely ignored sports and arts (including music) education programs.

The definition of talent involves a choice laden with moral, political, and scientific arguments and is also very dependent upon the local context. We are aware of this, but we think that at this point, it was necessary to limit our study to description of talent development as found and focus on our exploration of honors programs throughout the countries. We have made inventories of admission procedures used by HEIs in different countries and for specific honors programs. Often, these selection and admission procedures are based on a limited view on talent, for example, only focusing on cognition and expressed in grades. More research into talent development in arts, music, design, and sports programs could lead to interesting new insights into teaching strategies fostering talent and its relationship to creativity and citizenship. New insights on how to challenge students and to evoke excellence could also be reached by delving deeper into the details of existing honors programs: what are the exact visions and missions that underlie these programs? How are those programs improving students' cognitive capacity while strengthening their interpersonal and intrapersonality abilities? Looking in more detail at honors education may give insight in the ways deeper, more meaningful, and transformative learning experiences are reached for gifted and motivated students. What is the climate towards excellence within the HEIs? But also: what are the experiences of students in the honors programs; in what way are their talents better recognized and/or developed? What are the perceptions of the working field receiving these students? Those perspectives could be of great use to people interested in the development of their own honors program.

17.4 Future Developments and Research

We hope we have already made clear that we think this research project practically screams for follow-ups: more insights are necessary and therefore more research is needed.

The most basic recommendations for further research follow from the paragraphs above. First, it is necessary to broaden views by including other countries in Europe or indeed the world in a research project. Second, we recommend to use various perspectives by including students and educators in the research. This can both provide a full overview of possibilities for talented students internationally and broaden opportunities for sharing knowledge among HEIs and policy makers.

Apart from this, we think that our findings within the 11 countries in this book have provided many possible starting points for new research projects. To inspire such further research, we have made a list of 12 possible central questions for follow-up projects. This can be found in Box 17.1. Of course, many more questions can be formulated.

Box 17.1: Possible Central Questions for Further Research

1. What are the goals of honors education and how do these relate to the official aims of regular education in different countries?
2. What teaching strategies are chosen for honors programs, why are they chosen, and how and why do they differ from regular education?
3. How are educational strategies in honors education evaluated and subsequently transferred to regular education?
4. What is the added value of honors education (measured in different ways)?
5. Who are the key persons and what are the key events or publications facilitating the diffusion of honors education between and within countries?
6. What is the result of honors education for organizing HEIs: do they attract or retain better students, teachers, and researchers? Does it influence the level of education at the HEI in general?
7. What do students ask for and need in honors education and why?
8. What is the added value of network formation within an honors program (community formation) and between different honors programs?
9. What are the results of private sector involvement in honors programs, both in content and output?
10. What is the long-term impact of community building within and between honors programs for both the programs in general and their (former) participants?
11. What is the relation between the national tradition of progression in education and the development of special provisions for talented students?
12. At what level (regional, national, international) do honors programs operate and how does this relate to its area for recruitment?

As the list shows, we think an important focus point for future research is the theme of networks within and around honors education. This network approach has several dimensions.

First is the institutional dimension. While in our definition honors education is connected to HEIs, we have seen some examples of initiatives that are not or only loosely tied to universities. Also, we have seen international programs, such as CEMS-MIM. Within HEIs, we see some signs of a link between the level of specialization and the development of honors education. In both Denmark and Austria, most honors programs are found at specialized universities, either technical or economical: the Copenhagen Business School and Vienna University of Economics and Business on the one hand and the Technical University of Denmark and the Technical University of Vienna on the other hand. It would be very valuable to discover trends in this institutionalization of talent development.

A second and related dimension is the contextual dimension. To what elements in the wider context are honors programs linked? We see roles of the private sector and of politics. Focused research on private sector involvement could shed more light on its consequences for both the contents of honors programs and the labor market position of honors program graduates. Further research among politicians could shed light on the question why the subject of excellence is politically contested in some countries and less in others.

Thirdly, we see the community dimension. This is an important element in many programs. In Austria, students form year-groups, while in the Netherlands, honors communities are set up with both online and “real-world” locations. In Finland, examples are from secondary school but still very relevant: students involved in activities such as Päivölä boarding school and the Millennium Youth Camp often become friends for life. The long-term impact of “honors community building” is not yet known, but this could provide another powerful argument for the development of honors programs.

All the dimensions above can also be expressed in the setup of programs and their mission statements. More detailed research into these statements and the elements expressed in them will also give greater insight in the motives behind the development of honors education.

Finally, there is the practical dimension. The more we know about networks, the more the experiences can be of use to others. The American and Dutch experiences with the NCHC and the Sirius Programme could serve as examples for other countries wishing to establish a framework around honors education. Further research comparing student-run programs to HEI-organized programs could also be very valuable.

As Danish talent coordinator Lene Krøl Andersen puts it: “I think talent development is all about making it on your own. In the old days we pointed at the students and they got it all served. I believe that was completely wrong. They have to create their own careers and fight for it.”

In the end, staff and students make honors education together. Hopefully, this insight inspires students to seek cooperation and exchange with honors programs abroad and (further) develop their own programs.

17.5 Concluding Remarks

Since the introduction of the first honors programs in the Benelux, Nordic and German-speaking countries, a lot of lessons have been learned. Many of the programs have gone through major changes before they found their current form and will keep on changing, continuously adapting new knowledge and new challenges. Luckily, the people involved in honors education are usually very willing to share

their knowledge and learn from each other. This constructive attitude can be beneficial for people thinking of developing their own honors program. Researchers can contribute to this by describing both successful good practices and failures.

Here we also reach the last factor influencing the development of honors programs: individual efforts. Persons are needed who like pioneering and really want to put a lot of effort into their dream of having a successful program for talented students. Many examples of such persons have come up in this book: among others, the teacher setting up the honors programs in Niederlandistik in Oldenburg (Germany); the rectorate at the University of Freiburg, who supported the development of a Liberal Arts and Sciences program in a new University College; the researcher in Danish Roskilde intent on making the “language profiles” available as an honors program. The value of such people cannot be overestimated, and more research into their exact roles is very relevant.

The countries in this book all have egalitarian traditions. However, there are many signs that the culture is slowly changing towards more focus on excellence. We have identified the factors relevant to the development of honors programs: ideology, the institutionalization of the education system, the political and economic context, and individual efforts.

We have seen that not only governments and HEIs but also private foundations, companies, and students themselves are taking initiatives in honors education and networks. Talent development has gained a higher place on the agenda of policy makers and educators in many countries over the last decade. We are optimistic about the development of honors programs in the years to come.

Still, more can be done. Agreement on the use of common language to describe programs would certainly help. In addition, we have seen that international networks and national frameworks for honors education are mostly lacking. Focus in education for talented and motivated students is still on compulsory education in many countries. The setup of an international honors network in Europe could give a great boost to education for talented students.

Honors programs challenge talents to strive for the best. The honors students of today are likely to become the global leaders of tomorrow. It is crucial that honors education provides them with a chance to fully explore their talents. Directly and indirectly, society as a whole also profits from having excellent education available also for the best students. We hope this book helps to connect the people involved – and hopefully also new adapters – to continue to offer the best education for all students, including the ones who are able and willing to break the academic lock step.

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Appendices

Appendix 1: List of All Universities in Germany

For all countries in this research project, a full list of universities and their honors programs is shown in the main text. For Germany, this list is too long. Therefore only the universities with programs are shown in the main text and the full list of universities is presented here. To compile the list, a list of research universities on the website of the Federal Ministry of Education and Research was used, pulled from www.bmbf.de/en/6574.php?LANG=ENG&T=8 in November 2013. First the websites of all universities were searched with keywords to find honors programs. Then all universities were contacted by e-mail. If they did not reply, they received a second e-mail and finally at least one phone call. The list was then crosschecked with the list of 106 universities in Statistisches Bundesamt 2014. Due to the fact that some private institutes were left out at the ministry's site and in some Bundesländer theological and pedagogical institutes are counted as universities while they are not in other Bundesländer, these lists differ slightly. The ministry's list was used as a basis, but the International Graduate School Zittau was left out, because it does not take undergraduate students, and the Charité medical university in Berlin was added from the list of the Statistisches Bundesamt 2014. The resulting list of 110 universities, ordered by state and student numbers, is shown below.

University (state*)	No. of students**	Honors?
Niedersachsen		
University of Göttingen, Göttingen	26,508	No
Leibniz University Hannover, Hannover	23,125	No
Technical University Braunschweig, Braunschweig	17,028	No
University of Oldenburg, Oldenburg	12,269	Yes
University of Osnabrück, Osnabrück	11,790	No
Leuphana College Lüneburg, Lüneburg	8,151	Yes
University Hildesheim, Hildesheim	6,404	No
Clausthal University of Technology, Clausthal-Zellerfeld	4,534	No
University of Vechta, Vechta	4,047	No
Hannover Medical School (MHH), Hannover	3,212	No
University of Veterinary Medicine Hannover, Hannover	2,412	No
Bremen		
University of Bremen, Bremen	18,504	No
Jacobs University Bremen, Bremen	1,290	No
Hamburg		
University of Hamburg, Hamburg	41,019	No
TUHH, Hamburg	6,584	Yes
HafenCity University Hamburg, Hamburg	2,432	No
Helmut Schmidt University of the Federal Armed Forces Hamburg, Hamburg	2,224	No
Bucerius Law School in Hamburg, Hamburg	954	No
Schleswig-Holstein		
University of Kiel, Kiel	24,396	No
University of Flensburg, Flensburg	4,810	No
University of Lübeck, Lübeck	3,471	No
Mecklenburg-Vorpommern		
University of Rostock, Rostock	14,390	No
Ernst Moritz Arndt University of Greifswald, Greifswald	11,477	No
Brandenburg		
University of Potsdam, Potsdam	20,051	No
Brandenburg University of Technology Cottbus (BTU), Cottbus	9,559	No
European University Viadrina, Frankfurt (Oder)	6,646	No
Berlin		
FU Berlin	32,742	No
Humboldt University Berlin	31,413	No
TU Berlin	31,013	No
Berlin Charité	6,803	No
Steinbeis, Berlin	6,202	No
International Psychoanalytic University Berlin, Berlin	485	No
ESCP Europe, Berlin	179	No

(continued)

University (state*)	No. of students**	Honors?
Baden-Württemberg		
University of Heidelberg, Heidelberg	30,334	No
University of Tübingen, Tübingen	27,437	No
University of Stuttgart, Stuttgart	26,052	No
University of Freiburg, Freiburg	24,157	Yes
Karlsruhe Institute of Technology, Karlsruhe	23,946	No
University of Mannheim, Mannheim	11,735	No
University of Konstanz, Konstanz	11,410	No
University of Ulm, Ulm	9,846	Yes
University of Hohenheim, Stuttgart	9,679	No
University of Education Ludwigsburg, Ludwigsburg	5,610	No
University of Education Freiburg, Freiburg	4,973	No
University of Education Heidelberg, Heidelberg	4,527	No
University of Education Karlsruhe, Karlsruhe	3,849	No
University of Education Weingarten, Weingarten	3,281	No
University of Education Schwäbisch Gmünd, Schwäbisch Gmünd	2,659	No
HfJS Heidelberg, Heidelberg	100	?
Rheinland-Pfalz		
Johannes Gutenberg University Mainz, Mainz	35,759	No
University of Koblenz and Landau, Mainz	14,806	No
University of Trier, Trier	14,668	No
University of Kaiserslautern, Kaiserslautern	14,003	No
WHU Otto Beisheim School of Management, Vallendar	990	Yes
German University of Administrative Sciences Speyer, Speyer	382	No
Theological Faculty of Trier, Trier	352	No
Vallendar University of Philosophy and Theology, Vallendar	242	No
Saarland		
Saarland University, Saarbrücken	17,800	Yes
Hessen		
Frankfurt University, Frankfurt am Main	44,496	No
Giessen University, Gießen	26,780	No
Philipps-Universität Marburg, Marburg	24,978	No
Technische Universität Darmstadt, Darmstadt	24,969	No
University of Kassel, Kassel	22,876	No
EBS Business School, Oestrich-Winkel	2,019	No
Frankfurt School of Finance & Management, Frankfurt	1,402	No
Sankt Georgen Graduate School of Philosophy and Theology, Frankfurt	383	No
Fulda Theology Faculty, Fulda	37	No

(continued)

University (state*)	No. of students**	Honors?
North Rhine-Westphalia		
FernUniversität in Hagen, Hagen	80,464	No
University of Cologne, Köln	52,315	No
WWU Münster, Münster	41,993	No
Ruhr University Bochum, Bochum	41,496	No
TH Aachen University, Aachen	40,536	No
University of Duisburg-Essen (UDE), Essen	39,184	No
University of Bonn, Bonn	31,878	Yes
TU Dortmund University, Dortmund	31,095	No
Heinrich-Heine-Universität Düsseldorf, Düsseldorf	27,777	No
Universität Bielefeld, Bielefeld	21,552	No
University of Paderborn, Paderborn	19,312	Yes
University of Siegen, Siegen	18,760	No
University of Wuppertal, Wuppertal	18,755	No
German Sport University Cologne, Köln	5,104	No
Witten/Herdecke University, Witten	1,688	No
Kirchliche Hochschule Wuppertal/Bethel, Wuppertal	129	No
Philosophisch-Theologische Hochschule SVD St. Augustin, Sankt Augustin	98	No
Faculty of Theology in Paderborn, Paderborn	94	No
Bavaria		
Ludwig Maximilians Universität München	47,959	Yes
University of Erlangen-Nürnberg	36,610	Yes
Technische Universität München	35,761	Yes
University of Würzburg	26,577	Yes
University of Regensburg	20,482	Yes
University of Augsburg	19,096	Yes
University of Bayreuth	12,520	Yes
Otto Friedrich Universität Bamberg	12,499	No
University of Passau	11,294	No
Katholische Universität Eichstätt – Ingolstadt	5,171	Yes
Universität der Bundeswehr München	2,806	No
Munich School of Philosophy, Munich	385	?
Augustana Hochschule Neuendettelsau	152	No
Philosophisch-Theologische Hochschule der Salesianer Don Boscos Benediktbeuern	19	No
Saxony		
Technische Universität Dresden	34,007	No
Universität Leipzig	25,751	No
Chemnitz University of Technology	10,733	No
TU Bergakademie Freiberg	5,380	No
Leipzig Graduate School of Management	554	No

(continued)

University (state*)	No. of students**	Honors?
Saxony-Anhalt		
Martin Luther Universität Halle-Wittenberg	19,711	?
Otto von Guericke Universität Magdeburg	14,104	No
Thüringen		
Friedrich Schiller Universität Jena	19,002	No
Technische Universität Ilmenau	6,703	No
Universität Erfurt	5,732	No
Bauhaus-Universität Weimar	4,337	No
TOTAL	1,692,236	

*In some states, church schools or pedagogical schools are officially designated universities, in other states not

**Source: Statistisches Bundesamt (2014, pp. 31–33)

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Appendix 2: Key Links

These key links have proven to be useful information sources or gateways regarding talent development in general and honors education in particular. They are grouped in government links, general higher education institution links (links to individual HEIs can be found in the respective tables in the country chapters) and other links. Links to specific honors programs can be found in Appendix 3.

The links have last been checked and found to be working on 22 September 2014.

Benelux Overall

- The Benelux, intergovernmental cooperation
www.benelux.int
- Accreditation Organization of the Netherlands and Flanders (Nederlands-Vlaamse Accreditatieorganisatie, NVAO)
www.nvao.com

The Netherlands

Government

- Ministry of Education, Culture and Sciences, special website ‘talent at school’
www.rijksoverheid.nl/onderwerpen/talent-op-school (Dutch only)
- Ministry of Education, Culture and Sciences, general website
www.government.nl/ministries/ocw (English)

Higher Education Institutions

- Sirius Program, government-supported program to promote excellence in Dutch higher education, also giving out starting subsidies until end of 2014
www.siriusprogramma.nl (mostly in Dutch)
- List of links to all HEIs participating in Sirius Programme and their English websites www.siriusprogramma.nl/english
- Association of universities (Vereniging van Universiteiten, VSNU)
www.vsnu.nl/home-english.html
- Netherlands Association of Universities of Applied Sciences (Vereniging Hogescholen)
www.vereniginghogescholen.nl (mostly Dutch)
- Research Centre for Talent Development in Higher Education and Society at Hanze University of Applied Sciences Groningen
www.hanze.nl/excellentie (Dutch only)

- Center for the Study of Giftedness (CBO) at Radboud University Nijmegen
www.ru.nl/its/cbo/ (Dutch only)

Other

- List of initiatives around giftedness and talent development in primary and secondary education, monitored by the SLO ([http://www.slo.nl/National Expertise Centre Curriculum Development](http://www.slo.nl/National_Expertise_Centre_Curriculum_Development))
www.talentstimuleren.nl (Dutch only)
- National Honors Conference, organized by and for Dutch honors students from different HEIs
www.honoursconference.nl
- Socrates international honours society – international network of honors students
- socrateshonours.org

Belgium

Government

- Flemish community (Vlaamse gemeenschap)
flanders.be
- Education ministry of the Flemish Community
onderwijs.vlaanderen.be
- French community (Fédération Wallonie-Bruxelles)
cfwb.be
- Education portal for the French community
www.enseignement.be
- German Community Belgium (Deutschsprachige Gemeinschaft Belgiens)
www.dglive.be

Higher Education Institutions

- VLHORA – umbrella organization of the Flemish University Colleges
www.vlhora.be
- Flemish Interuniversity Council (Vlaamse Interuniversitaire Raad/VLIR)
www.vlir.be
- Flemish Education Council (Vlaamse Onderwijsraad)
www.vlor.be
- Rector's conference of French community (Conseil des Recteurs)
www.cref.be
- Interuniversity council of French community
www.ciuf.be

Other

- Information about French community's higher education landscape (in English)
studyinbelgium.be
- Information about Flanders higher education landscape (in English)
highereducation.be
- Exentra, formerly known as Centre for giftedness research Antwerp (Centrum voor Begaafheidsonderzoek)
www.exentra.be (Dutch only)
- Hoogbegaafd Vlaanderen, parents' associations focusing on spreading information
www.hoogbegaafdvlaanderen.be (Dutch only)
- Bekina – Association for gifted children and parents, organizing activities (Flemish community)
www.bekina.org (Dutch only)
- Mensa Belgium, international association for gifted people
www.mensa.be (Dutch, French and English)
- EHP-Belgique (Elèves à haut potentiel), parents' association for gifted children (French community)
www.ehpbelgique.org (French only)
- List of information links about gifted children (French community)
enseignement.be/index.php?page=25001&navi=308&rank_page=25001 (French only)

Luxembourg

Government

- Ministry for Education and Youth
www.men.public.lu/fr/index.html
- Ministry for Higher Education and Research
www.mesr.public.lu/
- Centre for Documentation and Information on Higher Education
www.cedies.public.lu/fr/index.html

Higher Education Institutions

- University of Luxembourg:
wwwen.uni.lu
- Institut Universitaire International Luxembourg (IUIL)
www.iuil.lu

Other

- Mensa Luxemburg (association for gifted persons), includes activities for kids
www.mensa.lu

The Nordic Countries

- Nordic cooperation, including Nordic Council and Nordic Council of Ministers
www.norden.org
- Nordic Talent Network
www.scientetalenter.dk/da/partnerskab/nordisk-talentnetvaerk/ (mostly Danish)

Denmark

Government

- Ministry of Education
eng.uvm.dk
- Ministry of Higher Education and Science
ufm.dk/en
- Higher Education Admission Service (Optagelse)
www.optagelse.dk

Higher Education Institutions

- Association of Danish Universities (Danske Universiteter):
www.dkuni.dk/english
- Association of Danish University Colleges (Danske Professionshøjskoler)
www.uc-dk.dk/da/

Other

- University of Copenhagen Junior Researchers Project
forskerspirer.ku.dk/english/what
- Academy for Talented Youngsters (Akademiet for Talentfulde Unge)
ungetalenter.dk (Danish only)
- Science Talenter, program for gifted secondary school students (12–20 years)
www.scientetalenter.dk/en
- Mentiqa schools for gifted students in primary and lower secondary education
www.mentiqa.com, www.mentiqa-odense.dk (Danish only)
- Gifted Children, nationwide organization for (parents of) gifted children

<https://www.giftedchildren.dk/content.php?r=762-in-english> (mostly Danish)

- Mensa Denmark (association for gifted people)
www.mensa.dk (Danish only)
- Young Scientists Program (Unge Forskere)
ungeforskere.danishsciencefactory.dk (Danish only)

Norway

Government

- Ministry of Education and Research
www.regjeringen.no/en/dep/kd.html?id=586
- Norwegian Universities and Colleges Admission Service (Samordna Opptak)
www.samordnaopptak.no/info/english/
- NOKUT – Norwegian Agency for Quality Assurance in Education
www.nokut.no
- Norwegian Centre for International Cooperation in Education (SIU)
www.siu.no/eng

Higher Education Institutions

- List of all institutions:
www.studyinnorway.no/Where-can-I-study>List-of-institutions
- Norwegian Association of Higher Education Institutions
www.uhr.no/om_uhr/about_uhr

Other

- Centres of Excellence in Higher Education
www.nokut.no/en/Universities-and-university-colleges/Centres-of-Excellence-in-Higher-Education/
- Association of Parents of gifted children (Norwegian only)
www.lykkeligebarn.no
- Blog about gifted children and gifted education (Norwegian only)
krumelurebloggen.no
- Termbase for translation of education terms Norwegian-English
termbase.uhr.no

Sweden

Government

- Ministry of Education and Research
www.government.se/sb/d/2063
- The Swedish National Agency for Education (Skolverket)
www.skolverket.se
- Swedish Council for Higher Education (Universitets- och högskolerådet)
www.uhr.se
- Swedish Higher Education Authority (Universitetskanslersämbetet)
english.uk-ambetet.se

Higher Education Institutions

- List of all institutions:
english.uk-ambetet.se/highereducation/highereducationinstitutions.4.4149f55713bbd917563800011041.html
- List of universities including contact information
<https://www.universityadmissions.se/en/All-you-need-to-know1/Studying-in-Sweden/Swedish-universities/Contact-information-for-Swedish-universities/>

Other

- Swedish-English dictionary for higher education terminology www.hsv.se/densvenskahogskolan/svenskengelskordbok.4.47873ee11827f812de8000359.html
- Association of top programs in secondary education (Spetsutbildningar)
www.spetsutbildningar.se/start (Swedish only)
- Gifted Children Program of Mensa, association of highly gifted people
https://www.mensa.se/_/vad-vi-gor/gcp (Swedish only)

Finland

Government

- Ministry of Education and Culture
www.minedu.fi/OPM/?lang=en
- Finnish National Board of Education
www.oph.fi/english

Higher Education Institutions

- List of universities and other Higher Education Institutions
www.minedu.fi/OPM/Koulutus/yliopistokoulutus/yliopistot/?lang=en

Other

- Päivölä boarding school
www.paivola.fi (Finnish only)
- Millennium Youth Camp
www.technologyacademy.fi/events/millennium-youth-camp/

Iceland

Government

- The Ministry of Education, Science and Culture
eng.menntamalaraduneyti.is

Higher Education Institutions

- The Network of Public Universities in Iceland
samstarf.hi.is/node/28
- Rannis, Icelandic Centre for Research
en.rannis.is
- University of Iceland
english.hi.is

Other

- The Icelandic education system explained
https://www.island.is/en/education/educational_structure/structure_of_the_education_system/

German-Speaking Countries

- International Panel of Experts on Gifted Education (iPEGE)
www.ipege.net

Germany

Government

- Federal Ministry of Education and Research
www.bmbf.de/en/index.php
- Ministry's homepage on 'supporting the highly talented':
www.bmbf.de/en/762.php
- The Standing Conference of the Ministers of Education and Cultural Affairs (KMK)
www.kmk.org

Higher Education Institutions

- German rector's Conference (Hochschulrekotorenkonferenz, HRK), the association of German higher education institutions
www.hrk.de
- Higher education Compass (Hochschulkompass), online portal providing a complete overview of all institutions and study programmes in Germany (mostly in German)
www.hochschulkompass.de/en/higher-education-institutions.html

Other

- Bildung und Begabung e.V., organizer of Deutsche SchülerAkademie and Deutsche JuniorAkademie
www.bildung-und-begabung.de
- Parents' association for gifted children (Deutsche Gesellschaft für das hochbegabte Kind):
www.dghk.de
- Information about Excellence Initiative (in research)
www.exzellenz-initiative.de

Austria

Government

- Ministry of Education and Women's affairs – Bundesministerium Bildung und Frauen
www.bmukk.gv.at
- Ministry of Economy, Science and Research – Bundesministerium für Wirtschaft, Wissenschaft und Forschung
www.bmwf.gv.at

- Austrian Research and Support Center for the Gifted and Talented (Österreichische Zentrum für Begabtenförderung und Begabungsforschung; ÖZBF)
www.oezbf.net

Higher Education Institutions

- List of all universities and universities of applied sciences
- wissenschaft.bmwf.at/bmwf/studium/studieren-in-oesterreich/unis-privatunis-fhs-uebersicht/
- Austrian Academy of Sciences
www.oeaw.ac.at

Other

- ECHA Austria (European Council for High Ability)
www.echa-oesterreich.at

Switzerland

Government

- Swiss Conference of Cantonal Ministers of Education (Schweizerischen Konferenz der kantonalen Erziehungsdirektoren/Conférence suisse des directeurs cantonaux de l'instruction publique, EDK/CDIP)
www.edk.ch
- State Secretariat for Education, Research and Innovation (SERI) – federal government's specialised agency for national and international matters concerning education, research and innovation policy
www.sbfi.admin.ch

Higher Education Institutions

- Swiss University conference
www.cus.ch
- Swissuniversities, uniting the rector's conferences
www.swissuniversities.ch

Other

- Network for gifted education (Netzwerk Begabungsförderung)
www.begabungsfoerderung.ch

- Association for highly gifted children (Stiftung für Hochbegabte Kinder)
www.hochbegabt.ch
- Parents' association of gifted children (Elternverein für hochbegabte Kinder)
www.ehk.ch
- Swiss Study Foundation (Schweizerische studienstiftung)
www.studienstiftung.ch
- SwissGifted, association for gifted education
www.swissgifted.ch

Appendix 3: Contact Details Honors Programs

These contact details and contact persons are as published on the program's website or as found through personal communication. Links have last been checked on 22 September 2014.

The Netherlands

For the Netherlands, links to HEIs' general websites are not included in the main text due to lack of space. Therefore they are presented here. Contact persons come from the Sirius Programme website or have been provided by the Sirius Programme.

Links to Dutch government-supported research universities and their honors programs

University	General website	Specific honors website	Coordinator/contact	E-mail
University of Amsterdam (UvA)	Uva.nl	www.uva.nl/onderwijs/bachelor/waaron-de-uva/talentprogramma-s/-honoursprogramma-s/-honoursprogramma-s.html	–	–
Utrecht University (UU)	uu.nl	www.uu.nl/bachelors/honoursonderwijs/www.rug.nl/education/honours-college	Mirjam Bok A. van Aragon	m.bok@uu.nl honours@rug.nl
University of Groningen (RUG)	Rug.nl	www.vu.nl/honours	Caroline Hollerman	honours@vu.nl
VU University Amsterdam (VU)	Vu.nl	onderwijs.leidenuniv.nl/honoursacademy	Marieke van Haaren	info@honoursacademy.leidenuniv.nl
Leiden University (LU)	Leiden.edu	www.eur.nl/onderwijs/honours/	Awee Prins	prins@fwb.eur.nl
Erasmus University Rotterdam (EUR)	Eur.nl	www.honours.tudelft.nl	S. Walsarie Wolff	c.s.f.walsariewolff@tudelft.nl
Technical University Delft (TUD)	Tudelft.nl	www.ru.nl/honoursacademy/	Han Rouwenhorst	honours@honours.ru.nl
Radboud University Nijmegen (RU)	ru.nl	www.maastrichtuniversity.nl/web/Main/ExcellenceProgrammes.htm	Ellen Bastiaens	ellen.bastiaens@maastrichtuniversity.nl
Maastricht University (MU)	Maastrichtuniversity.nl	www.tilburguniversity.edu/students/broaden/outreaching	Kim van Geijn	outreaching@tilburguniversity.edu
Tilburg University (TU)	Tilburguniversity.edu	www.utwente.nl/excellenie/en	Miko Elwenspoek	mastershonours@utwente.nl
University of Twente (UT)	Uva.nl	w3.tue.nl/nl/onderwijs/tue_bachelor_college/tue_honors_academy	Diana Vinké	a.a.vinke@tue.nl
TU/Eindhoven (TUE)	Tue.nl	www.wageningenur.nl/nl/Onderwijs-Opleidingen/Studiekeuzers-bachelor/Honours-Programme.htm	Ingrid Hijman	ingrid.hijman@wur.nl
Wageningen UR (WUR)	Wageningenur.nl			

Private university

University	General website	Specific honors website	Coordinator/contact	E-mail
Theological University of the Reformed Churches Kampen (TUK)	tukampen.nl	n/a	Elizabeth Blokland	eblokland@tukampen.nl

Links to Dutch universities of applied sciences and their honors programs (if applicable)

University of applied sciences	General website	Specific honors website	Coordinator/contact	E-mail
Amsterdam University of Applied Sciences (HvA) ^a	Hvam.nl	www.excellenteiprogramma.hva.nl	Marieke Janssen	m.h.c.janssen@hva.nl
Fony's University of Applied Sciences	Fontys.edu	hpusa2013.wordpress.com/tag/ fontys/	Ricardo Abdoel	
HU University of Applied Sciences Utrecht (HU) ^a	Hu.nl	www.excellent.hu.nl	Suzanne Unck	suzanne.unck@hu.nl
Rotterdam University of Applied Sciences (HR) ^a	Hr.nl	http://www.orionprogramma.nl/ docs/Sirius_info2013/nogeschool- rotterdam-honours- werkdocumentfeb2012.pdf	Ron Weerheitjim	c.e.weerheitjim@hr.nl
HAN University of Applied Sciences	Han.nl	blog.han.nl/honourslab/	Frank Verhoeven	Frank.Verhoeven@han.nl
InHolland University of Applied Sciences ^a	Inholland.nl	www.inholland.nl/Content/News/ Nieuws2011/201110/ Honoursprogramma.htm	–	–
Avans University of Applied Sciences	Avans.nl	www.avans.nl/opleidingen/ opleidingzoeker/leraar- basisonderwijs-breda-volijd- bachelor/opbouw?tab=specialisaties	Lidwien Jacobs	ljm.jacobs@avans.nl

Hanze University of Applied Sciences Groningen ^a	Hanze.nl	www.hanze.nl/home/Schools/hanze-honours-college/	Lammert Tiesinga	l.tiesinga@pl.hanze.nl
Saxion University of Applied Sciences ^a	Saxon.nl	saxon.nl/site/index/	Marie Lammers	m.t.lammers@saxon.nl
The Hague University of Applied Sciences (Hh)	Hhs.nl	www.dehaagsehogeschool.nl/bachelorstudies/aanbodopleidingen/bedrijfskunde-mer-voltijd/studie-major-minor	Ans Netjes	J.w.netjes@hhs.nl
Windesheim University of Applied Sciences	Windesheim.nl	windesheimhonourscollege.nl/andwww.windesheim.nl/bedrijven-en-instellingen/stage-en-praktijk/praktijkopdrachten/honours-programme/	Tineke Kingma	t.kingma@windesheim.nl
Zuyd University of Applied Sciences	Zuyd.nl	international.zuyd.nl/studying/degree-programmes/advanced-health-care/programme	Annelies Gielgens	annelies.gielgens@zuyd.nl
NHL University of Applied Sciences ^a	Nhl.nl	www.nhl.nl/nhl/5774/kennis-en-bedrijf/excellenteprogrammaa.html	M.C. Kat	excellenie@nhl.nl
Stenden University of Applied Sciences	Stenden.com	www.stenden.com/nhl/bedrijven/lectoraten/projectbureau-academisering-Stenden-Hogeschool/Paginas/default.aspx	Herman Blom	herman.blom@stenden.com
University of Applied Sciences Leiden	Hsleiden.nl	www.hsleiden.nl/honoursprogramma	Lea Hermisen	hermsen.l@hsleiden.nl
Breda University of Applied Sciences (NHTV)	Nhtv.nl	https://insight.nhtv.nl/wp-content/uploads/2013/09/Information-leaflet-honours-program.pdf	Maarten Meeuwis	Meewis.M@nhtv.nl

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University of applied sciences	General website	Specific honors website	Coordinator/contact	E-mail
HZ University of Applied Sciences	Hz.nl	Not available	Edwin Torn Broers	edwin.tornbroers@hz.nl
Christelijke Hogeschool Ede	Che.nl	–	–	–
VHL University of Applied Sciences	vhluiversity.com	–	–	–
HKU University of the Arts Utrecht	Hku.nl	–	–	–
ArtEZ Institute of the Arts ^a	Artez.nl	www.artez.nl/Kennis-en-onderzoek/Honours-Programme	Marlies van Hak	honoursprogramme@artez.nl
Amsterdam School of the Arts (AHK) ^a	ahk.nl	www.nationaleballetacademie.nl	Klaas Backx	klaas.backx@ahk.nl
HAS University of Applied Sciences	Has hogeschool.nl	Not available	Frederike Praasterink	m.overmars@has.nl
Vilentum University of Applied Sciences	vilentum.com	–	–	–
Hotelschool The Hague	Hotelschool.nl	–	–	–
VIAA/Gereformeerde Hogeschool	viaa.nl	–	–	–
Marnix Academie	Nhtv.nl	www.marnixacademie.nl/voltijd/academische-lerarenopleiding.aspx	–	–
University of the Arts The Hague	kabk.nl/hk	–	–	–
Driestar Educatief ^a	driestar-educatief.nl	http://www.driestar-educatief.nl/getattachment/Studeren/Hbo-opleidingen/Pabo-voltijd/Studie-info/Pabo-1-en-2/Honoursprogramma.pdf	Annelies Kraaijveld	a.kraaijveld@driestar-educatief.nl

Codarts Rotterdam	Codarts.nl	–		
Hogeschool Pabo	hs-ipabo.edu	–		
Gerrit Rietveld Academie	gerrittietveldacademie.nl	www.artandresearch.nl/	Cato Cramer	j.c.cramer@uva.nl
De Kempel	Kempel.nl	kempel.nl/Opleidingen/ ChallengeProgram/Program/Pages/ Challenge-Program-Nieuw.aspx	Marcel Lemmen	m.lemmen@kempel.nl
Design Academy Eindhoven	designacademy.nl	–		
Katholieke Pabo Zwolle	Kpz.nl	–		
Thomas More Hogeschool	thomasmorehs.nl			
Iselinge Hogeschool	www.iselingehoogeschool.nl/	www.iselinge.nl/ih_nl/fih_pabo.php	Gerdo Velthorst	gerdo.velthorst@iselinge.nl

^aIndicates member Sirius Programme

Belgium

Contact details for honors programs at Belgian universities

University	Program name	Url	Coordinator/contact	E-mail
University of Antwerp	Honours College	https://www.uantwerp.be/en/faculties/fbd/education/honours-college/	Dr. Marleen Eyckmans	marleen.eyckmans@ua.ac.be
Katholieke Universiteit Leuven	Honoursprogramma	www.kuleuven.be/nl/home/onderzoek/nieuws-onderzoek/honoursprogramma_2013	Prof. Dr. Steven Lierman	steven.lierman@law.kuleuven.be
Universiteit Gent	Quetelet Colleges	www.ugent.be/student/nl/studeren/honoursprogramma/universiteitsbreed-programma	Debora van Durme	debora.vandurme@UGent.be
Universiteit Gent	Honors Program in Life Sciences	www.ugent.be/fw/nl/onderwijs/honoursprogramme	Tom Coenye	tom.coenye@ugent.be
Universiteit Gent	Honors Award in Sciences program	www.ugent.be/we/nl/onderwijs/has	Anja Sandrap	Anja.Sandrap@UGent.be
Université Métropolitaine	Honours College	www.metropolitanuniversity.eu	Karla Biebouw, Lydie Lejuste	karla.biebouw@kuleuven-kulak.be, lydie.lejuste@uclouvain-mons.be

Denmark

Contact details for honors programs at Danish higher education institutions (HEIs)

HEI	Program name	Url	Coordinator/contact	E-mail
University of Aarhus	Talentforløb Physics and Astronomy	–	Allan Hvidkjær Sørensen	ahs@phys.au.dk
University of Southern Denmark	Research in Corporate Communication	www.sdu.dk/Uddannelse/Kandidat/IVK_elite	Tine Jambang	ivk-sek@sdu.dk
Technical University of Denmark	Biotech Academy	www.biotechacademy.dk	Lene Krøl Andersen	leka@bio.dtu.dk
Technical University of Denmark	Honors Masters	www.dtu.dk/english/Education/msc/Honours-Programmes	Trylle Amfired	tca@adm.dtu.dk
Copenhagen Business School	GLOBE program	www.cbs.dk/globe	Tine Løvig Simonsen	tls.stu@cbs.dk
Copenhagen Business School	EngAGE program	www.cbs.dk/en/study/bachelor/bachelor-msc-in-international-business/engage	Eileen Dyer	EngAGE@cbs.dk
Roskilde University	Language profile	www.ruc.dk/uddannelse/bachelor/bachelor-med-særlig-sprogrørel/	Petra Daryai-Hansen	pdh@ruc.dk
University College Lillebælt	Physiotherapy Talent Palette	–	Anne Marie Højvang	amhc@ucl.dk

Finland

Contact details for honors programs at Finnish universities

University	Program name	Url	Coordinator/contact	E-mail
Aalto University	Honours Programme in Information and Computer Science	ics.aalto.fi/en/studies/honours_programme/	Stefan Ehrstedt	stefan.ehrstedt@aalto.fi
University of Turku	Fast Track Physics	www.utu.fi/fi/yksikot/sci/yksikot/fysiikka/opiskelu/fastrack/Sivut/home.aspx	Jaani Tuura	jaani.tuura@utu.fi
University of Oulu	Language honors program	www.oulu.fi/kielikoulutus/node/10235	Anne Viherkari	anne.viherkari@oulu.fi

Contact details for honors programs at German universities

University	Program name	Url	Coordinator/contact	Contact
Leuphana University Lüneburg	Studium Individuale	www.leuphana.de/bachelor-studium-individuale.html	Dr Volker Balli	volker.balli@leuphana.de
University of Oldenburg	Honours-Programm der Niederlandistik	–	Prof. Dr. Esther Ruijgedijk	esther.ruijgedijk@uni-oldenburg.de
Technical University Hamburg-Harburg	GES_Plus	https://www.tuhh.de/alt/tuhh/education/degree-courses/bachelors-programs/ges-plus.html	Prof. Dr.-Ing. Gerhard Schmitz	ges_plus@tuhh.de
University of Freiburg	University College Freiburg	www.ucf.uni-freiburg.de	Natascha Gimbel	studyinfo@ucf.uni-freiburg.de
University of Ulm	Eliteförderung	www.uni-ulm.de/studium/individuelle-studienmodelle/elitefoerderung.html	Claudia Grab	claudia.grab@uni-ulm.de
WHU – Otto Beisheim School of Management	Bachelor in International Business Administration	www.whu.edu/programme/bachelor-in-internationaler-bwl-management-bsc/	Wolfgang Staus	wolfgang.staus@whu.edu
Bonn University	Honors Program for BA Students	http://www3.uni-bonn.de/research/portal-for-doctoral-and-postdoctoral-researchers/doctoral-studies-in-bonn/honors-program-for-ba-students-1	Dr. Kai Sticks	honorsprogram@uni-bonn.de
Saarland University	Bachelor-Förderprogramm and Master-Förderprogramm	https://www.cs.uni-saarland.de/index.php?id=138	Prof. Markus Bläser and Prof. Reinhard Wilhelm	studium@cs.uni-sb.de

University of Regensburg	Honors Elite Programme (Bachelor)	www-wiwi.uni-regensburg.de/ Honors/ Cber_Honors/ Bachelor/index.html.en	Prof. Dr. Michael Dowling	michael.dowling@wiwi.uni-regensburg.de
Technical University Munich	Junge Akademie	www.jungeakademie.tum.de	–	jungeakademie@zv.tum.de
Technical University Munich	Best.in.tum	www.in.tum.de/en/current- students/advising-and-support/ mentoring-and-support- programs/foerderprogrammen- der-tum/promotion-of- outstanding-students-at-the- tum.html	Prof. Eike Jessen	jessen@in.tum.de
University of Paderborn	Exzellenzprogramm	http://www-wiwi.uni-paderborn.de/ studierende/erfolgreich-studieren/ studium-individuell-gestalten/ exzellenzprogramm/	Anne Eickhoff	exzellenzprogramm@wiwi.upb.de
University of Paderborn	Eliteförderprogramm EIM	www-eim.uni-paderborn.de/ lehre/elitefoerderung.html	Prof. J. Blömer	bloemer@mail.uni-paderborn.de

Elite Network of Bavaria

Contact Coordination Office at Bayerisches Staatsministerium für Bildung und Kultus, Wissenschaft und Kunst (Bavarian State Ministry of Education, Science and the Arts)

E-mail: elitenetzwerk-bayern@stmbw.bayern.de

Contact details of individual programs within the network can be found at <https://www.elitenetzwerk.bayern.de/elitestudiengaenge/elite-graduate-programs-according-to-fields-of-study/?L=2>

Austria

Contact details for honors programs at Austrian universities

University	Program name	Url	Coordinator	Contact
Vienna University of Economics and Business	Center of Excellence	www.wu.ac.at/coe	Mag. Susanne Aigner	coe@wu.ac.at
Vienna University of Economics and Business	WU Top League	www.wu.ac.at/wutopleague	Mag. Susanne Aigner	wutopleague@wu.ac.at
Universities in Graz	Circle of Excellence Graz	www.coe-graz.at	Heinz Hoesch	info@coe-graz.at
Technical University of Vienna	Tuthetop	tuthetop.at	Birgit Hauck	tuthetop@tucareer.com

Appendix 4: Interviews with Key Persons

For this book, key persons from different countries were interviewed, as described in Chap 3. Excerpts from some of these interviews are shown in the main text. For all interviews, a summary is presented in this appendix. These interviews have been held in the period November 2013 – April 2014 and texts have been checked by the interviewees in April/May 2014.

'Policy weighs so much heavier than does fact'

Roland S. Persson, Psychology professor at Jönköping University (Sweden), founding ECHA member and expert on gifted education¹

Ideology

‘You have to realize that notions such as high achievement or giftedness have been completely absent in the educational system since the 1940s. Such terms were not in use at all; as a behavioral phenomenon it was hoped of course that if there is high achievement or giftedness then this is a quality that everyone has. Any other scenario would be unthinkable and “undemocratic”. It is only with the EU 2020 Agenda and its ratification in 2004 that this very strange ideological notion has started to change. Presumably I was the first amongst scholars who brought giftedness into the public eye by publications and numerous interviews in the daily press starting in 1997. However, it was all considered strange and inappropriate until 2004, when Swedish politicians were made brusquely aware of the fact that there was such a thing as “gifted education” in the rest of Europe.’

‘With the conservative cabinet came also some sort of “gifted education”. The most senior education official in Stockholm: Jan Björklund (Liberal), had pursued 6 classes of advanced placement, in different areas of Stockholm, for what he characterized as “high achieving pupils”. Once he became minister in 2006 he expanded this local project of advanced placement to become national, and this is “Spetsutbildning”. [...] It should be noted though that this effort is experimental: it is not ratified as being a normal part of the education system. It is a political and no doubt an economic experiment which runs over a determined period of time after which the experience will be evaluated. There are also now annual evaluations of course, and a colleague of mine at Gothenburg University has assessed these evaluations and concluded that so far these advanced placement classes are not a great success. Presumably the reason for this is that this political intervention in education was, like so much else in modern society, done with no regard to previous research and international experience. The teachers of these classes have not been trained and they had no idea what a gifted child was. Also, admittance to these programmes are based on pupils’ interest and their grades. The grading system in

¹This interview was in the form of an e-mail conversation, this is an abridged version.

Swedish schools however is a very very weak one with hardly any predictable power (in my assessment). So, gifted education of sorts does now exist in Sweden, although as an experiment, and one that has been poorly prepared. However, national awareness of giftedness has gained enormous momentum. Everyone knows what it is and parents demand action [But] the education system itself lacks both recognition and knowledge.'

Language

'It might be good to know that the terms giftedness or talent are almost never used. In connection with the Advanced Placement, pupils are not even referred to as high achieving. They are referred to as "Pupils who like to be challenged" – this is a very political and intentional choice of word.'

Nomenclature has been a problem for virtually all countries with some interest in gifted education, and I think for two reasons: different understandings of theory, function and purpose of high ability, but also the matter of political strategy: wanting to have but not showing that one has! [...] The politicians of the knowledge economy desperately want high ability in terms of innovation potential, but they cannot term it "giftedness". The only reason is that "giftedness" is a word signifying the segregation of ability and potential. No politician would gain any public confidence if they promoted policies for special groups and discussed them as in any way better or different than other groups no matter how factually correct the issue at hand. So fact stands against strategy. This is presumably the case everywhere in Europe and elsewhere, but it is particularly sensitive in egalitarian cultures such as the Scandinavian. [...] In Sweden, by choice of government agencies, the term is "they who like to be challenged". An awkward term to use, blunt in terms of definition, but often not wrong in regard to the population it supposedly describes'.

'We don't talk about gifted or talented'

Elisabet Mellroth – Swedish contact person for Nordic Talent Network, mathematics teacher and Ph.D. student

There is not many people involved in education of talented children in Sweden. What do you think is the cause of this?

'This is my private opinion. First of all, in Swedish society, we haven't talked about gifted, or talented or even high achievers. It's not a tradition to talk about them. The politicians, the teachers, the whole society has thought before that those who are gifted, they can manage on their own.'

What do you see changing in this respect?

'First of all, the last two years, the media have written about highly gifted children. The psychologist Anita Kullander in Rättvik and Roland Persson have been in the media. So we have started to talk about them. [...] I was recently visiting in

Hamburg, and there I got the question: what do parents in Sweden do if they have a child in elementary school and the child is gifted? And until a few years ago, the answer is: nothing. But now people have gotten to know about it. And we have a new school law in Sweden, it says that students who easily reach the goals that have to be reached, they have to be given support and stimulated to reach further in their knowledge development. This is a demand that every school has to follow.'

So now you can offer something special and then these children might come to you.
'Yes. In Sweden, I don't think people will use the word gifted, because of the Jantelagen. (...) That is a very hard rule in Swedish society. You can't say here that you are better than anyone else. I think using the word talent is better. Gifted is genetic, some people think. But what do we mean? We mean children who need and demand more than the traditional curriculum can give them. (...) If we continue like this [not using words like talented or gifted], segregation will get higher. The gifted child with parents who are low educated or maybe immigrant, they will not apply to go to that school [with a special program on offer, because they cannot find it]. So I think it is really important that municipality schools do something for these children.'

There are big discussions about the PISA 2012 results, where Sweden is not doing very well. [...] Part of the blame is put on the system with the friskolor.

'I have been working at friskolor a lot and I think that those schools I have been working at and the teachers I have worked with, work really hard to support students. Because they have to fight for every pupil, they become more of a team. But that is my personal opinion. And then there is the others that are looking at friskolor as a system. And there are friskolor that are not even owned by Swedish companies (...) their only goal is to make money. In this city where I live there was a school that could not make the economy. And then they could not survive as a company anymore. So they sent the students home. It is really bad. And then the municipality has to find a solution for the students. So of course that is not a perfect system. But that is not the ordinary way these schools are driven. My personal opinion that this [system with friskolor] is not the reason for the PISA result.'

Do you think some dramatic change will be made as a result of the PISA report?

'No, not a dramatic change. I think Sweden is a country that doesn't change dramatically. But for the gifted children maybe the report can do more than awake the question that we have to do something about that we do not have many high-achieving students. We have to find ways to... we need mathematicians, we need scientists, we need technology and so on, and then we have to do something for the high achievers. And then I believe it is closely connected to the talented and giftedness.'

'They just gave you another book'

Linda Mattsson – researcher at Blekinge Institute of Technology and mathematics teacher, recently wrote (English-language) dissertation about gifted education in mathematics in Sweden

How did you come up with the idea of writing about this subject?

‘To be honest, you know Sweden is a very egalitarian society. I had very much ease in mathematics in school when I was younger. (...) But no one really cared about you, about the development of extra abilities or critical thinking. They never challenged you. (...) They just gave you another book or they could also leave you outside the classroom to work on your own. That is very typical for Sweden. (...) That was my experience. Then I went to teacher education myself and they never ever mentioned students that had an ease with certain subjects. Instead, they always mentioned that we should keep track of the ones that have a hard time reaching the goals in education. (...) So for me, I had this hunger to find ways to support gifted students. It was personal interest in the field. And there was not very much done.’

What kind of research was there?

‘In the early 2000s, there had been a project going on in Linnaeus University – which I write about. They had support from the government to do some research about giftedness in mathematics. (...) They had only just started out. (...) The only one that had actually had done something was Roland Persson. But he had been more concerned about social or emotional feelings that come if you don’t get your cognitive needs met. He was the first, I’d say. But his work was not accepted by the time he did it in Sweden. He wrote a very good book in Swedish about giftedness in general. About who they are, how to talk to them and label them, how to identify and problems. He wrote it in 1997, published it, but it was not spread very much. It was not accepted, while it was very good.

But somehow with this project in Linnaeus University, five to seven years later, Sweden was a little bit more prepared for this. But when the newspaper heard about the funding of a research project about giftedness it was on the first page of the biggest newspaper in Sweden. Oh, now this government is funding elitist programs. We have very much this *Jantelagen*. Immediately the professor who was the coordinator of this research program had to explain herself. Because immediately they think about something bad in Sweden. Or at least the media tried to put in that way. (...) Things have changed now, they have now started the *spetsutbildningar* in the upper secondary school and also cutting edge programs in compulsory school. But they are in the pilot phase, so they have not said it will continue. We see how it turns out.’

What do you think will happen with regard to this subject in the next few years?

‘Well, I can’t talk for all the subject. I mostly talk to the ones who develop mathematics programs. I think it will continue and it will develop. But it is a hard situation to work in. [Teachers] don’t get any financial support to develop their teaching or teaching material. They work with all their heart, prepare in leisure times and during holidays. They are very much alone. If they retire or quit, then the whole program might just fall. It often hangs on one or a few persons, it is very vulnerable so far. But I am hopeful.’

Challenges, Advice and Gathering

Interview Nynne Afzelius, Secretary at Akademiet for Talentfulde Unge (academy that organizes programs for talented students in upper secondary education) in Denmark

How did the program start?

‘We started with the first students in 2008. For a couple of years we received government funding, but now we are based on funding for the schools. The schools pay for students who go into the program and that is how we keep things running. Basically we have three aims:

1. We challenge them in an academic way. Too many have been sitting in their ordinary classes not working hard, not stretching, not trying. In our program they have to stretch, to try, to work hard and do things that are difficult.
2. We focus on career advice. We try to give them insight into what education they should choose. Many of them have many talents, they can choose a lot of different things and often that makes it even more complicated to choose. We make sure that they meet interesting role models, so that they think: I want to be like him, how do I do that?
3. Social gathering, making new friends, meeting somebody like themselves basically. Many 17 year-olds think they are the only person in the world thinking the way they do. But a lot of our students are a bit more right when they feel they are the only ones. We try to match them with people like themselves who want to do something and are motivated for making a career.’

What is the content of the program?

‘We are a broad talent project, meaning that you have to be talented in basically every academic field. You have to be good in mathematics, in science and in language. They stay in their ordinary schools and continue education there and do our project as extracurricular activities. Because of that we try to make the program after school. A typical seminar would be from 4 pm to 8 or 9 pm, or a complete Saturday, or a week during the summer holidays. We start in January for a two-year program. We have four semesters, focusing on different things. In the first semester, the headline is thinking academically. How do you think, what an academic argument is. In the second semester, we are working with the headline how to communicate academically, how do you present verbal and written, what is academic language like, etcetera. In the third semester we are working with: how do you work in more depth with academic challenges. They get to choose a bit more, so it is: how do I immerse myself academically in a field. And the fourth semester, we are working with: how do I work academically, what does an academic project look like, and an academic career. There are possibilities to visit companies and universities.

That is mainly the mandatory program, but we have a whole list of elective arrangements on top of that. They can choose a wide range of workshops, seminars, lectures, arrangements of any kind basically, choosing what suits them or what they think is interesting. What we see is that around half of the students do the mandatory

seminars and not much more. A quarter takes one or two extras per semester. And then the last quarter they participate in a lot of activities.'

What would be the ideal scenario for your program?

'It would be best if it were possible for the students to make this program count in some way. As it is now, they do get a diploma. The minister of Education shows up and shakes hands and it is all very nice, but it doesn't count in any way. And I think it would be very fair to the students if in some ways it counts if they go on in education. You don't take education for fun. It's okay if it is fun along the way but it is not for fun.'

'They really flourish'

Uffe Svegaard is not only coordinator of the Nordic Talent Network (see chapter Nordic countries), he is also project coordinator at ScienceTalenter, an extracurricular program for talented 12–20 year-olds interested in science. The program was set up after TalentCamp05 and is based in the Science Center building in Sørø (Southern Sealand). This building was donated in 2009 by the private A.P. Møller fund. Pupils can take classes here and stay overnight.

'In our Science Talent College project, we take about 60 people from high school and give them a period of two years in which they can leave their school and come here for three or four days and work in science camps, where you have special topics, like for instance: how do you feed nine billion people in 2050? Or how do you make renewable energy? And also astronomy, black holes. The students are so happy with this challenge, they really love it.'

How do you select the students for the project for high school students?

'We have a network of elementary schools and high schools. Whenever we have a camp, let's say an astro camp lasting for three days, we send out a paper to the high schools saying we have this camp, we have room for 60 young people who are very interested in astronomy. Each elementary or high school that is a member of our network must appoint a coordinator to facilitate the personal contact between us and the school, and this coordinator will also be responsible for finding the adequate talent to join this camp. So actually we are not selecting them but the schools as part of our network select them. It is very seldom that we receive some youngsters who should not really have been there. Most of them they really flourish, they really feel that they are in their right element.'

Do you give them a diploma?

'Yes, in the Science Talent College we give them a diploma. And we are also working with universities so that when they have taken a course at our camp, they can be taken off some of the obligatory courses at the university. In that sense we are working with universities being part of the education. They are also very interested in working with us, because they would like to get hold of those talents, of course.'

'Talent development is unequally distributed'

Interview Stefan Hermann – Headmaster at Metropolitan University College Copenhagen, former head Talent Working Group (*talentarbejdsgruppe*) of Danish government

How did you get involved in the subject of talent development?

‘The former government, the liberal government, announced with prime minister approval, to set out a working group, that should on the one hand evaluate current initiatives in talent development in all levels of the educational system and on the other hand propose a long-term strategy for the strengthening of talent development. The background was of course political but could also be seen as a tool to enforce a new professional culture in the Danish educational system. (...) We conducted our work and delivered the report two and a half years ago [in 2011]. Since then the agenda has grown politically and not least institutionally.’

Does the working group still exist in some form or is there something new?

‘No, the working group was dissolved after delivering the report. And the liberal government set out a plan for reforming the Danish primary school which had a chapter on talent development. (...) But the government did not get reelected, a new centre left government was formed in the fall of 2011. And they proposed a number of initiatives in higher education. They have not yet proposed a specified initiative in terms of youth or primary school education. But in many ways they tried to follow the recommendations. Not least because most of the recommendations were generally speaking good things to do if you want to improve the quality of education. (...) At the moment there is quite some stress on the quality agenda, which of course partly is a talent agenda.’

What do you think will happen in the next few years?

‘I think we will see a bit more of those structural initiatives in terms of giving students more opportunities to choose, you will see a greater supply of talent courses at all levels of the educational system, driven by the institutions to attract resources. I hope we will see much stronger research and development in terms of how do we teach everyone to improve the standards and not just in terms of creating greater equity. We do have hardly any tradition in Denmark in terms of nurturing talented students.’

Is this very dependent upon the political context?

‘I think it will go on irrespective of government change. There is a national consensus in the parliament and among the traditional governing parties that this agenda is important. (...) Why this is so important is that the public sector, the government, finances all education in Denmark. Because education is open and free for everybody. That means you can’t just make a private university focused on talent and elite in Denmark. So political action is important, but there are also political actions that can put down a frame that has to be filled out and developed by the institutions. In that respect, I think the culture has changed and there is

much greater stress on these issues in higher education, but it is unequally distributed. It is very easy for a wealthy traditionally very strong university to develop such programs, but for a university college where you do not have a long tradition or consensus it is difficult.'

In general in Denmark education has a bit of an egalitarian tradition.

'The egalitarian tradition in Denmark is maybe not in DNA, but it is extremely strong. It's a tacit assumption of everything. But it is being challenged nowadays. One of our strongest points in the talentarbejdsgruppe was that the best ways generically to change culture is to stress the quality issue. (...) It is changing, but we are on a long road here.'

'The new generation is kind of laid-back'

Interview Dr. Ella Cosmovici Idsøe, associate professor at Stavanger University, co-author of 2011 book 'Våre evnerike barn – en utfordring for skolen' (Our gifted children – a challenge for the school)²

What do you think the culture towards excellence is like in Norway?

'Success in sports and music is promoted and applauded, but not academic success. Also, it is in people's spines that if you say one child is better in a subject than another, it implies somehow that you say that child has more value than another. So they very much avoid labelling and categorizing, and some do not agree with screening and testing. It is not allowed by law to group children permanently according to their intellectual or knowledge level.'

Do you have an idea where this culture comes from?

'Something happened politically in the 1960s. The inclusive educational model was adopted by that time. But actually, this system is not so successfully implemented in practice and this is supported by our PISA results and the critics from OECD. Teachers are trained to teach to the middle group of children and the manuals are written for the middle group. The extremes, both the gifted and the disabled, are kind of neglected. Maybe I am not the best person to ask about this background, because I emigrated to Norway ten years ago. But the effect is that generally the society thinks that children with gifts can manage by themselves and it is a luxury problem. There is so much focus on equality, but it is misunderstood equality. I agree with equal opportunities, but we are not equal human beings, we have different needs, educational ones included.'

Can you tell me what this culture means in practice?

'In the Norwegian educational policy there is no definition or normative identification criteria for gifted learners, there is no focus on the needs of these children in schools or teacher training programs and there is a lack of research on this topic in

²This interview is a mix of answers by e-mail and by phone.

the Norwegian context. (...) Also, there is nothing about this subject included in teacher education. (...) There are some forms of acceleration practiced and also topic choice in upper secondary school is offered. We just got a new government that is hopefully more positive towards the gifted.'

Does that mean there is a momentum for change now?

'The new minister wants to do something. Also because the PISA report was disappointing. There is a big discussion now, for example about the after education of teachers. (...) It is very hard to recruit teachers. One of the reasons I guess is that economically we are doing very fine. Really, it is a very demotivating factor. Why should I strive for a demanding job as teacher when I can get the exact or even higher salary with a less demanding job? I think this economical factor is also important for children studying at school or in higher education. There is not big unemployment, there is no hard competition, and they can get a job. The new generation is kind of laid back. But I just got a meeting with the minister of Education and he seems to understand the needs of these children. He already announced that there will be 10,000 places for teachers to get more specialized/trained in maths and science. Because this was another problem. How can you teach the gifted when as a teacher you are not specialized? We discussed about the possibility of introducing the gifted topic in general teacher training across the country. And also about producing digital enriching resources for the gifted. They already started a virtual mathematics school. So the future is promising.'

'We don't have that tradition in Norway'

Interview Helen Bråten, Project Manager SFU (Centres for Excellence in Higher Education) at NOKUT (Norwegian Accreditation Agency).

Why was the SFU program developed?

'The Norwegian ministry of Education and the sector had seen that there was a big focus on incentives and on quality in research, but this was not equally emphasized and developed in higher education. By implementing the SFU program we got incentives for stimulating excellence in teaching and learning. The ministry wanted to highlight the fact that education and research are equally important activities for higher education institutions, hence they wanted universities and colleges to focus more on education.'

How could this focus on research happen?

'I think funding and rewarding mechanisms is one factor that can explain this. Research has higher status and there is a longer tradition for stimulating and rewarding excellence in research. In Norway there were no systems for recognition and rewarding excellence when it comes to education and teaching. Now we have the SFU-program and we have an educational quality prize, both managed by NOKUT.'

SFU is aimed at institutions and not at individual students. Was this a deliberate choice?

‘The SFU program is directed towards institutions and study programs at bachelor and master level. The SFUs must provide excellent and innovative education and have plans for further development. At the same time they must have good plans for dissemination of good practices and knowledge about educational methods that are conducive to learning. In this perspective excellence is related to the academic community and provision and in what way they are able to facilitate students’ learning. We do assess the SFU applicants in a number of areas and aspects; having excellent students at entrance level might be one factor, grades and learning outcomes are others, but we also focus on the process: what do the academic communities do to facilitate learning and how do they know that these activities are successful and excellent.

We believe that this program will enhance learning and teaching for many students and enhance quality in education and in academic communities. The intention with the SFU program is to stimulate the best, while at the same time the SFUs are required to involve other academic communities in their work and disseminate good practices. (...) There are no honors programs in Norway, we don’t really have that tradition. In higher education there has not been this focus on excellent students. As in most other countries, there are admission limitations to (some popular) study programs, which guarantees that only those with the best grades from upper secondary school are accepted. This may represent an excellence factor.’

To get back to the issue of equity and equality. How do you think this has developed?

‘I might not be the right person to explain this, but I think the education system has developed along with the welfare system. Hence one aim has been to adjust differences in socio-economic backgrounds and promote equity through education (...) I think also the Norwegian culture and tradition of equity is deeply rooted in the society. We want people to have equal opportunities. The idea behind the prohibition to differentiate in *grunnskolen*, is that even though some pupils are smarter or cleverer than others, learning together is a good thing. The smarter ones will learn more from explaining to their peers and then the others will also learn more. I think that is the idea behind why it is forbidden to differentiate. But it is also being debated. (...) Things may be different now when we have a conservative government which might focus more on the opportunities for optimal learning for gifted children.’

‘SFU status gives us leverage’

Interview Vigdis Vandvik – Director BioCEED Centre of Excellence at University of Bergen

What do you think convinced the jury about your application?

‘Two or three things maybe set us out from the others a little bit. I think they liked our concept. And when they came, we were super prepared. (...) I think because of

the preparation we came across as quite professional. And then they talked to our students and we have very engaged, clear spoken students. We did not say we had the best education in the world. We have some things that are good, some things that we want to improve and some ideas that we want to try out.'

Does the money from the SFU program allow you to do things you would otherwise not have thought of?

'Yes, we get around 3 million crowns, 300,000 euros extra per year. And we already have the students and the funding for teaching and teachers, so it's extra money. If you want to hire people, build something, it is nothing. But if you want to put some extra resources here and there, it is a lot. And what is also interesting is, the money is one thing, but the SFU status also gives us a lot of extra leverage. We have been saying we don't like our student facilities. Before, the university would say yes, we hear you, but it is too expensive. And now they say: oh really? What should we do? All of a sudden they are listening to us. The status gives us better credibility in the university and we collaborate more with the other biology institutes. It's easier to make things happen and to experiment.'

Do you think the SFU program has brought a sort of momentum in Norway?

'I think so. The most important aspect is the recognition thing. (...) There was so much focus on research, that if you really like teaching you should not tell people. Now it is more balanced. There is the same kind of prestige in teaching as there is in research. The fact that we have to compete for money makes a huge difference.'

What do you think about the Norwegian culture towards differentiation and excellence? Is that changing at the moment?

'We have an extremely egalitarian culture in Norway. We give the students grades but we are really careful in telling the students you are a good student, you are a bad student. They are supposed to understand from their grades but we don't talk about it. (...) The SFU program is not put together to separate the good from the bad students at all, but I think we would benefit from being a bit more open about it. (...) I think it is also in students' interests, because there is a real life out there and that will hit them.'

'Ph.D. is the way of taking care of them'

Interview Grethe Sofie Bratlie

Deputy Director General, Ministry of Education and Research, Department of Higher Education, Norway

The new government has announced new plans with the focus on quality in education. Is this seen as a big change?

'Well, focusing on quality in Norway is not actually a new policy, but what is a change is that this is lifted up as a policy area as such also in higher education. (...) Quality in higher education has always been there and we have thought a lot about

it, but as a policy area which politicians talk about and set as a main goal, that is seen as a shift.'

What do you think the culture towards excellence is like in Norway?

'In Norway we have had over many years the culture of being equal. Every single person, every child shall have the same possibilities whatever their social background is, wherever they live in the country. No child should be favored, but everyone should have the possibility to develop their skills and choose their own abilities. (...) The culture in Norway towards excellence is a huge acceptance when it comes to sports and music. The acceptance for giving possibilities for helping students in upper secondary school and earlier as well to grow when they have especially good abilities in certain areas, this is growing in Norway. (...) This is also important in order to secure and develop the Norwegian prosperity in general. And the labor market. To have enough innovation, entrepreneurs, to create jobs. What is coming after the oil? That is a big discussion here, even though we know that here will be oil for many years still. But because of for instance the climate change problems and also other challenges our society in Norway and the global community faces, we know that we need to create new jobs in new areas. I think this is also a driver for the change in attitude in the population in general.'

Do you think there might be a change where there will be more focus on the individual instead of the systemic development?

'I don't know, because forty or fifty years ago higher education was an elitist system as such. It was only for the especially talented people. But, as in many other countries, higher education has become mass education and there is still a discussion within the system about the elitist thinking and the mass thinking. So in one way it is possible to say that higher education is a possibility for well-talented young people. (...) When it comes to higher education, you know about the SFU program. That is a systemic way of thinking how to build excellence in higher education. I think the policy in Netherlands and Norway is a little different. Of course we know that talent is placed in individuals, but we try to develop possibilities which are systemic. So that is also the case when you see the program in upper secondary schools, the programs in music. When it comes to students in higher education, we don't have specific programs for special talents. But of course we have special education programs focusing on higher education in music. It is a little difficult to see the difference between the systemic and the individual. (...) [But] I think the higher education institutions take care of their especially talented students. They try to guide them into research, to pick them up as Ph.D. students. (...) The ministry and the government have financed quite a few Ph.D. systems. One of the reasons of building up capacity with new Ph.D. positions, is to secure recruitment of new research fellows to HEIs, but also to other fields in the labor market. The very important implication is that the Ph.D. track gives possibilities to take care of the talented. So it is like research is the way of taking care of them. And also we see that companies are hunting for talents in universities and university colleges. They have programs to attract talents from the higher education system. So it is a connection between the labor market and the institutions.'

'Guiding the best of the best'

Interview Susanne Aigner, program coordinator Top League/Center of Excellence at WU Wien

Why did you choose an interdisciplinary approach for the programs?

‘It is part of our vision that groups are heterogeneous, especially in the master phase. It is our aim to mix these students, to broaden their perspectives and get new ideas. We are of course already a specialized university.’

What is the involvement of university staff in the programs?

‘Every group has academic supervisors: usually a professor and his or her assistant. They join the group and supervise the process. But we want the group to manage itself. We organize a kick-off weekend where we tell the students about the possibilities they have and divide them into smaller groups. From then on, we want to just guide them, we want the group to do the whole work. The organization of the program has developed quite a bit over the years, for example because of the Bologna Process. But we have always had the groups as basis.’

How important is the alumni network?

‘Very important! We now have a group of about 2,000 alumni. Each year we have an alumni meeting, where about 200 will join. The network of alumni is very useful. They often go on to work in top positions, and some will even sponsor a new group. For example, we had an alumnus of the program who has now become the CEO of a top company and she decided to sponsor a group in 2011.’

What is the main motivation for students to join the program?

‘Students see it as a big chance to meet new people, get new opportunities and challenge themselves. They are very proud to be part of Top League or COE. Also, participation definitely helps them in getting a job. If they finish the program of course they have the certificate. But often the group sponsors will offer traineeships as well. That can be a nice start for a career.’

Is your program well-known in Austria?

‘Yes, I think it is. Many Austrian companies have been involved as a sponsor and we have of course our alumni who have spread out throughout Austria and the world. The Center of Excellence in particular has a good name. This is because students come from our English-language master programs, for which the best bachelor students are selected. And for the Center of Excellence, we select the best of those. So we can say we have “the best of the best”. Businesses like that.’

‘We are doing too little at the university level’

Interview Victor Müller-Oppliger, Professor at Pädagogische Hochschule Nordwestschweiz, expert on gifted education

In the Swiss context, the private sector is involved in gifted education. How is this looked upon?

‘This is a big discussion here. More and more we are opening this field and we will have jobs also paid by these companies sometimes. And then you have the other people who are very critical and have the idea that education is not free, with no thoughts behind and expectations of economics and things like that. Most times it is viewed very critical. But more and more we see that the public hand is not able to finance what we would like to have. So there is a need to involve also the economics in that. We have 26 different cantons in Switzerland and therefore 26 different school regulations and policies. And so it is very different. In large cities like e.g. Zürich people are more open-minded to that, and then you have cantons in some parts of central Switzerland that would never allow to bring private institutions into the schools. So it’s like a patchwork in Switzerland.’

And in the development of more of these programs, do you think the initiative will be more with the government or more with the private foundations?

‘We can see the government is doing too little. This is my position of course as a director of this program. We discuss with the government more than ten years for the finance of gifted education. If you look at Switzerland, we don’t have natural resources, reserves of oil or gold in the ground. What we have is our knowledge. This is our economic capital. So there is a need for what we are doing. I myself am also working with some foundations and I am on three foundation boards. We are really interested to bring our ideas that gifted education is important also to the government. So we have lots of meetings with governmental persons in different cantons to convince them that we have to do more in this area. At about 25 % of the cantons in the last five years they developed some lesson tools. Our research says about 25 % is financed by private sector. About half of them by private foundations and economics the other half. There is really a need for this, because the public hand is sometimes not willing and sometimes not able to finance gifted education.’

What do you think about the culture towards excellence in Switzerland? Is this also a patchwork?

‘Yes, but it is more... It is not as burdened as it seems to be in Germany, where you are suspicious sometimes if you are too good or too qualified and you sometimes should not use the word giftedness. We don’t have this problem in Switzerland. Everyone is convinced that we have to have expertise and excellence and that this is important for the population and the future. But what Swiss people don’t like is the idea to have special schools for gifted kids, we really are obliged to the idea of inclusive gifted education. Every school should have its program for gifted students and of course there are some Centres to promote giftedness, but not special elite gymnasiums or elite universities. That is something that in Switzerland is refused mentally. We don’t like to separate. But we work to find ways of inclusive talent development. And some kind of combinations, that 50 % of school time should be in groups of age and regular social groups, and the other 50 % of learning time would be personalized and individualized and really on the level of what students can achieve. That is what we are working on. This is a situation in the last five years.’

Once you move to university, what is then available to the students?

‘That is an interesting question, because actually we are organizing a new European congress for next September. (...) And the question of promoting gifted students at the university level is one of the main focuses we have. Because we really realize we are doing too little at the university level. (...) So this is something that is just starting to be aware of. We hope we can bring a point in this discussion with the congress in September. (...) I think in about three years we will have programs. I am very positive of that.’

‘Small legal restriction is irrelevant’

Interview Professor Hans-Joachim Gehrke, Director of Outreach at University College Freiburg

I understood that in the KMK [Standing Conference of Ministers] a rule is made that you cannot have honors bachelor degrees.

‘Yes, you cannot explicitly mention it in the diploma. Formally we cannot build up a university college as an honors college, like in Utrecht. But to our colleagues who are running honors colleges in other countries, we can do justice to certain criteria, for instance high grades and certain professors teaching, or an opportunity to take part in research. In reality there is no problem, but in Germany we cannot write this is with honors. (...) For the moment it is financed partly by the special program excellence in teaching by the federal ministry of Research and Education.’

Do you feel restricted by the legal issue?

‘No, absolutely not. Neither here in Germany nor in the international context. Our international partners do not really mind about this small legal restriction. What is really going on, what really makes the difference, is the question what makes an honors education.’

Why is this restriction in place?

‘In our education system in Germany there is a strong accentuation or focus on equality. Giving opportunities and chances to everybody. For me this does not mean one cannot trust measures of elite building or excellence. But for many of the experts exactly this is the case. They are in favor of equality and they are very sceptical about elite and excellence, at least in teaching. In research, the situation is different. So for me it is a kind of misunderstood socialism. It is about ideology.’

Do you see this change in the near future?

‘No. The official view is very strong. But many parents want an excellent education for their children, obviously, and they bring their children to private schools. We have a kind of renaissance of private schools, driven by churches and so on. In reality, there is a tendency towards excellence in education. But in the official system, nearly all parties take into consideration this idea of equality and equal opportunities. Instead of being honest and say we have to have an elite and elite education. In

the university system, the situation is quite different. In research we have no restriction to talk about excellence, quite the contrary. We had this amazing competition, the excellence initiative which has been going on for more than ten years and everyone is going crazy about this. There is also an excellence initiative in teaching, but when you compare the money put into it, you immediately realize the point: it is about research. Excellence in teaching is more an alibi. But we took it seriously, at Freiburg we are eager to show that we are excellent in teaching.'

In Freiburg you have the first university college at a large research university. Do you think more universities will follow?

'Other universities are curious but hesitant. I think we will remain unique in this respect for some time. (...) What gives you reputation at the moment is research. (...) For this to change, you need the mentality in the heads of professors to change. That goes slowly. Particularly with German professors I think, haha.'

'You have to have an elite'

Interview Stephan Bedke, responsible for 'Fostering of Highly-Gifted Students' and 'Offers across the Network' at Elite Network of Bavaria

Why was the Elite Network of Bavaria developed?

'First development started around the year 2000. There were two main reasons. First was to prevent brain drain. We saw a lot of students and scholars go abroad to the UK or US, because these countries were more attractive in resources. The Bavarian universities wanted to develop attractive programs to make them stay in Germany and Bavaria in particular. Programs were also developed to work together with other universities inside and outside Bavaria, and internationally. This is all normal by now, but it was very new 15 years ago. The second reason is linked to the first: the Bavarian state and companies wanted to compete with businesses around the world. To be competitive and get the best students to work at for example BMW, they had to come up with new ideas. [...] We saw the private sector contribute some of the money to start the program. They have a profound interest in highly qualified students.'

Has there been a change in the goals of the network in recent years?

'The two basic ideas still count, but in the last five years the idea that top performers at university level need support has become more common. It has also spread to the school level. Generally speaking, there has been a tendency towards overall acceptance that you have to have an elite. In this respect, the culture has changed.'

Do you feel restricted by rules, such as the KMK rule forbidding bachelor degrees with honors?

'No. In fact, this can be explained very easily. The introduction of bachelor degrees is a recent thing, it has come with the Bologna reforms. People do not know what it is and certainly do not know what an honors bachelor degree is. They might even

mix it up with ‘honoris causa’ degrees, honorary degrees awarded to for example visiting politicians. Besides, people do still not really see a bachelor as a proper degree. It is seen as an intermediate exam. If you are good, you carry on anyway. [...] From a legal point of view – as far as the KMK rule is concerned – we do not officially have honors degrees in our master programs in Bavaria. So the honors degrees are going to disappear. People do not know what this is anyway. Instead of honors degrees we use the term “Elite Graduate Program” as a sign of high quality. Similar to honors degrees in other countries the students in the Elite Graduate Programs have to complete more courses.’

Why is focus on ‘elite’ and ‘excellence’ so strong in Bavaria?

‘I do not know and can only make a best guess. But Bavaria is a southern state that has been run by a conservative government for many years. The conservatives tend to focus more on competition and separation. In states that are run by the social-democrats, they focus more on the comprehensive school. [...] It is important to know that education is administered by the Bundesländer. They have a lot of power and are often jealous of each other. Bavarian politicians like to say we are the best Bundesland. [...] Our minister of Education is very fond of supporting talents. He has for example taken initiatives to find more talents among immigrant groups and among the working class. In general, the view is no longer that only those who underperform have a right to extra support. Now also the very good students have a right to support to develop themselves.’

Appendix 5: Lists of Tables, Figures, Maps and Boxed Texts

List of Tables

Table 1.1 Basic characteristics of researched countries

Table 2.1 Public expenditure on education as % of GDP, 2010

Table 2.2 Equity in education in PISA 2012

Table 2.3 Resilience in education in PISA 2012 and change since PISA 2003

Table 2.4 Progression of students in higher education

Table 2.5 Growth in participation in tertiary education, 2002–2011

Table 2.6 Educational performance in PISA, 2003–2012

Table 2.7 Performance of research universities in university rankings per country

Table 4.1 Honors programs at government-supported research universities in the Netherlands

Table 4.2 Honors programs at universities of applied sciences in the Netherlands

Table 5.1 Honors programs at Belgian universities

Table 5.2 Katholieke Universiteit Leuven – Honoursprogramma

Table 5.3 Ghent University – Quetelet Colleges

Table 5.4 Ghent University – Honors Program in Life Sciences

Table 5.5 Ghent University – Honors Award in Sciences program

Table 5.6 University of Antwerp – Honours College

Table 5.7 Université Métropolitaine – Honours College

Table 7.1 Honors programs at universities and university colleges in Denmark

Table 7.2 Aarhus University – Talentforløb Physics and Astronomy

Table 7.3 University of Southern Denmark – research in corporate communication

Table 7.4 Roskilde University – language profile

Table 7.5 Copenhagen Business School – GLOBE program

Table 7.6 Copenhagen Business School – EngAGE program

Table 7.7 Technical University of Denmark – Biotech Academy

Table 7.8 University College Lillebaelt – Physiotherapy Talent Palette

Table 8.1 Universities and specialized university colleges in Norway

Table 9.1 Universities and university colleges in Sweden

Table 10.1 Honors programs at Finnish universities

Table 10.2 Aalto University – Honours Programme in Information and Computer Science

Table 10.3 University of Turku – Physics fast track

Table 10.4 Oulu University – Language honors program

Table 11.1 Higher education institutions in Iceland

Table 12.1 Honors programs at German universities

Table 12.2 Leuphana University Lüneburg – Studium Individuale

Table 12.3 University of Oldenburg – Honours-Programm der Niederlandistik

Table 12.4 Technical University Hamburg-Harburg – GES_Plus

Table 12.5 University College Freiburg

Table 12.6 University of Ulm – Eliteförderung

Table 12.7 WHU Otto Beisheim School of Management – Bachelor in International Business Administration

Table 12.8 Bonn University – Bonner Honors Program

Table 12.9 University of Paderborn – Exzellenzprogramm

Table 12.10 University of Paderborn – Eliteförderprogramm EIM

Table 12.11 Saarland University – Bachelor-Förderprogramm and Master-Förderprogramm

Table 12.12 University of Regensburg – Honors Elite Programme

Table 12.13 Technical University Munich (TUM) – Junge Akademie

Table 12.14 Technical University Munich (TUM) – best.in.tum

Table 13.1 Honors programs at universities in Austria

Table 13.2 Circle of Excellence Graz

Table 13.3 WU Top League

Table 13.4 WU Centre of Excellence

Table 13.5 Technical University of Vienna – TUthetop

Table 14.1 Universities and universities of applied sciences in Switzerland

Table 15.1 Honors programs at HEIs per country, overview 2014

Table 15.2 Provisions for talented and gifted students and selectiveness of education system per country, overview 2014

Table 15.3 Selectiveness of higher education entry per country, overview 2014

Table 17.1 Provisions for talented and gifted students in compulsory education per country, development 2000–2014

List of Figures

Fig. 2.1 Population in tertiary education (ISCED 5–6) as % of total population, 2002–2011 (Eurostat 2014, own calculation)

Fig. 3.1 (a) The Norwegian education system. (b) Standardized Eurypedia legend

Fig. 4.1 Structure of the Dutch education system

Fig. 5.1 Structure of education systems in Belgium. (a) Flemish community. (b) French community (c) German-speaking community

- Fig. 6.1 Structure of the Luxembourgish education system
- Fig. 7.1 Structure of the Danish education system
- Fig. 8.1 Structure of the Norwegian education system
- Fig. 9.1 Structure of the Swedish education system
- Fig. 10.1 Structure of the Finnish education system
- Fig. 11.1 Structure of the Icelandic education system
- Fig. 12.1 Structure of the German education system
- Fig. 13.1 Structure of the Austrian education system
- Fig. 14.1 Structure of the Swiss education system

List of Maps

- Map 1.1 Countries in research project Talent Development in European Higher Education
- Map 2.1 Participation in tertiary education as % of total population, 2011, compared to EU average (Eurostat 2014)
- Map 2.2 PISA scores 2012, compared to OECD average (Country score is calculated by adding PISA scores in maths, science and reading and comparing them to the OECD average of 1,491) (OECD 2013b)
- Map II.1 The Benelux countries
- Map 4.1 Dutch higher education institutions with honors programs, 2014
- Map 5.1 Belgian universities with honors programs, 2014
- Map III.1 The Nordic countries
- Map 7.1 Danish higher education institutions with honors programs, 2014
- Map 10.1 Finnish universities with honors programs, 2014
- Map IV.1 The German-speaking countries
- Map 12.1 German universities with honors programs, 2014
- Map 13.1 Austrian universities with honors programs, 2014
- Map 15.1 Honors programs in European higher education, 2014

List of Boxed Texts

Box 3.1 The CEMS-MIM Program

Box 4.1 The Netherlands – The Basics

Box 4.2 Education in the Netherlands

Box 4.3 Dutch Higher Education Landscape

Box 4.4 Local Terminology

Box 4.5 Key Players in Excellence

Box 5.1 Belgium – The Basics

Box 5.2 Education in Belgium

Box 5.3 Key Players in Excellence

Box 5.4 Local Terminology

Box 6.1 Luxembourg – The Basics

Box 6.2 Education in Luxembourg

Box 6.3 Local Terminology

Box 6.4 Key Players in Excellence

Box III.1 ‘Denmark Has a Ten Year Lead on Talent Development in the Nordic Countries’

Box 7.1 Denmark – The Basics

Box 7.2 Education in Denmark

Box 7.3 Danish Higher Education Landscape

Box 7.4 Key Players in Excellence

Box 7.5 Local Terminology

Box 7.6 ‘It Has to Be Student-Driven’

Box 8.1 Norway – The Basics

Box 8.2 Education in Norway

Box 8.3 Higher Education Landscape

Box 8.4 Local Terminology

Box 8.5 Key Players in Excellence

Box 9.1 Sweden – The Basics

Box 9.2 Education in Sweden

Box 9.3 Free Schools and Education for Profit

Box 9.4 Local Terminology

Box 9.5 Key Players in Excellence

Box 10.1 Finland – The Basics

Box 10.2 Education in Finland

Box 10.3 Higher Education Landscape

Box 10.4 Local Terminology

Box 10.5 Key Players in Excellence

Box 11.1 Iceland – The Basics

Box 11.2 Education in Iceland

- Box 11.3 Local Terminology
- Box 11.4 Key Players in Excellence

- Box 12.1 Germany – The Basics
- Box 12.2 Education in Germany
- Box 12.3 Higher Education Landscape
- Box 12.4 Student Quota
- Box 12.5 Key Players in Excellence
- Box 12.6 Local Terminology
- Box 12.7 ‘Teachers Spend Extra Time on You’
- Box 12.8 ‘A Great Opportunity’

- Box 13.1 Austria – The Basics
- Box 13.2 Education in Austria
- Box 13.3 Austrian Higher Education Landscape
- Box 13.4 Local Terminology
- Box 13.5 Key Players in Excellence
- Box 13.6 ‘Guiding the Best of the Best’

- Box 14.1 Switzerland – The Basics
- Box 14.2 Education in Switzerland
- Box 14.3 Higher Education Landscape
- Box 14.4 Key Players in Excellence
- Box 14.5 Local Terminology

- Box 16.1 Factors Influencing the Development of Honors Programs in a Specific National Context
- Box 16.2 Ten Most Striking Findings

- Box 17.1 Possible Central Questions for Further Research

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Index

A

Aalto University, 160, 162
Abitur, 182, 183
Academic excellence, 184
Academische pabo, 54, 73
Academy for Talented Youth, 110–112
Admission criteria, 11, 12, 15, 49, 70, 80, 115, 140, 166, 168, 272
Afburðanámsmenn, 169
Afzelius, N., 112, 303, 309
Aigner, S., 224, 303, 317
Ammattikorkeakoulu (AMK), 35, 156
Amsterdam School of the Arts (AHK), 57, 72
Amsterdam University College, 54, 57
Amsterdam University of Applied Sciences, 65–67
ArtEZ Institute of the Arts, 72
Atlas University College, 54, 63
Avans University of Applied Sciences, 69
Aydelotte, F., 4, 269

B

Baccalauréat, 94, 231, 234
Bachelor-Förderprogramm, 201
BaföG, 183
Barneskole, 128
Basisschool, 44
Bedke, S., 189, 203, 304, 320
Begabt, 94
Begabtenförderung, 189, 217–219, 235
Begåvade barn, 145
Benelux, 6, 7, 17, 35, 39, 41–42, 88, 96, 241–243, 247, 248, 258–259
Best.in.tum, 202, 203

Bildung und Begabung, 186, 188

Biotech Academy, 120, 121
Björklund, J., 139, 304
Bologna Declaration, 20
Bologna Process, 6, 20–21, 50, 108, 129, 189, 254–256
Bonn University, 199
Børn med særlige forudsætninger, 113
Bråðger börn, 169
Brain drain, 6, 25
Bråten, H., 132, 133, 303, 313
Bratlie, Grethe Sofie, 128, 133, 303, 315
Breda University of Applied Sciences, 66, 71
Bundesländer, 179, 180, 188, 193, 213, 214

C

Cantons, 17, 229–231, 233, 234, 246, 265
CBS. *See* Copenhagen Business School (CBS)
CEMS-MIM, 37, 134, 160, 256, 263, 275
Center for the Study of Giftedness (CBO), 51
Center of Excellence (CoE), 5, 122, 131–133, 135, 158–160, 163, 169, 217, 223–225, 244, 245, 254, 255, 261, 262, 264, 271
Centres of excellence in higher education. *See* Senter for Fremragende Utdanning (SFU)
Centres of excellence in research. *See* Senter for Fremragende Forskning (SFF)
Challenge Program, 69, 73, 266, 277
Circle of Excellence Graz, 221–223
CITO-toets, 45
Co-curricular, 14, 38, 54, 59, 71, 112, 113, 117, 201, 226
College of Pharmaceutical Science, 58

Community building, 63, 266, 267, 273, 275, 276
 Comprehensive school, 101, 153, 154, 156, 182
 Copenhagen Business School (CBS), 44, 114, 118–119, 261, 275
 Cosmovici Idsøe, E., 131, 303, 312
 Cultural dimensions theory, 16
 Culture towards excellence, 4, 7, 15–17, 96, 100–101, 184, 188, 189, 233, 241, 242, 246, 252, 257, 259

D

De Kempel, 73
 Descartes College, 58
 Deutsche Junior Akademie (DJA), 185, 188
 Deutsche Schüler Akademie (DSA), 176, 185
 Differentiation project, 43, 126
 DJA. *See* Deutsche Junior Akademie (DJA)
 Double degree programs, 37, 134, 171
 Driestar Educatief, 73
 DSA. *See* Deutsche Schüler Akademie (DSA)
 DTU. *See* Technical University of Denmark (DTU)
 Dygtige elever, 113
 Dýpkun, 169

E

ECHA, 51, 186, 253
 ECTS. *See* European Credit Transfer and Accumulation System (ECTS)
 Educational philosophy, 16–20, 44, 251, 252, 257
 Egalitarianism, 3, 14, 16, 18, 19, 49, 81, 100, 140, 145, 147, 168, 184, 233, 244, 247, 257, 258, 260, 269, 277
 EHEA. *See* European Higher Education Area (EHEA)
 Eidgenössische Technische Hochschulen, 231
 Elever med särskilda förmågor, 145
 Élèves à haut potentiel, 82, 94
 Élèves talentueux, 82, 94
 Eliteförderprogramm EIM, 200
 Eliteförderung, 198
 Eliteforløb, 113
 Elite Graduate Programs, 201, 203, 204, 207
 Elitelinje, 131
 Elite Master Programs, 110, 114, 116, 205, 209, 262
 Elite Network of Bavaria, 188, 189, 191, 201–209, 245, 263
 Elitenetzwerk Bayern. *See* Elite Network of Bavaria

Eliteprogramm, 131
 Elitestudiengang, 189
 Eliteuddannelse, 113
 Eliteutdanning, 131
 Elitutbildningar, 145, 146
 Enfants à haut potentiel, 82
 EngAGE program, 118, 119
 Enseignement fondamental, 92
 Enseignement secondaire, 94
 Entrance examination, 80, 143, 154, 157, 166, 168, 183, 208, 216, 244, 248
 Entrepreneurial Journey, 71
 Entrepreneurship, 58, 69, 122–123
 Equality, 17, 81, 100, 101, 109, 144, 153, 156–160, 168, 169, 233, 260
 Equal opportunity, 18, 20, 100, 130, 144, 165, 244, 258, 260, 265
 Equity, 18–20, 100, 102, 125, 129–131, 133, 144, 153, 182
 Erasmus Honours Programme, 60, 61
 Erasmus Mundus, 116, 134, 148, 160
 Erasmus University Rotterdam (EUR), 54, 60–61
 Erhvervsakademi, 33, 109
 Erityislahjakas, 158
 EUR. *See* Erasmus University Rotterdam (EUR)
 European Credit Transfer and Accumulation System (ECTS), 21, 56, 58, 64, 65, 69–73, 102, 110, 113, 117, 256
 European Economic and Social Committee, 6
 European Higher Education Area (EHEA), 32
 Eurostat, 7, 22–24, 91, 165, 213
 Eurypedia, 28, 32, 33, 77
 Evnerike barn, 131
 Excellence Initiative, 4, 25, 45, 158, 184, 188–190, 219, 220, 244, 245, 254, 255, 259
 Excellence model, 52
 Excellent studenten, 50
 Excellent school, 47
 Extracurricular, 14, 38, 54, 113, 117, 220
 Exzellenzförderung, 189
 Exzellenzinitiative. *See* Excellence Initiative
 Exzellenzprogramm, 189, 200, 218, 235
 Exzellenzstipendium, 219

F

Fachhochschulen, 35, 177, 180, 182, 214, 216, 230, 233, 237, 248
 Fast Track Physics, 162
 Fischbach, A., 91
 Flanders, 42, 55, 80, 96, 243
 Folkeskole, 106, 110

Folk high schools, 109
Fontys University of Applied Sciences, 67
Freeman, J., 5, 16, 80, 169, 182
Free schools, 44, 146, 264
Fremragende utdanning, 131, 132
Friskole, 106, 140, 146
Friskolor, 140, 146
Fritz, A., 220, 222
Frühstudium, 185

G
GDP. *See* Gross domestic product (GDP)
Gehrke, Hans-Joachim, 304, 319
Generell studiekompetanse, 129
Gerrit Rietveld Academie (GRA), 73
Gesamtschule, 182
GES_Plus, 195, 197
Ghent University, 80, 83, 85–86
Gifted education, 5, 6, 15, 35, 45, 49, 51, 82, 101, 128, 144, 145, 148, 176, 186, 217–220, 233–236, 253, 265, 271, 273
Giftedness, 5, 16, 45, 51, 80–82, 133, 145–148, 158, 184, 186, 189, 217–219, 233, 245, 246, 253
Globalisation Fund, 110
GLOBE program, 118, 119
GPA. *See* Grade point average (GPA)
GRA. *See* Gerrit Rietveld Academie (GRA)
Grade point average (GPA), 11, 83, 108, 118, 183, 193, 249, 261
Gross Domestic Product (GDP), 7, 17, 18, 24, 105, 165, 229
Grundschule, 180
Grundskola, 140, 141
Grundskole, 105, 106
Grundtvig, NFS, 109
Grunnskole, 126, 128
Grunnskóli, 165, 166
Gymnasieskola, 140, 141, 146
Gymnasium, 45–47, 106, 112, 146, 156, 169, 176, 180, 182, 183, 185, 233

H
HAN University of Applied Sciences, 68
Hanze Honours College, 69
Hanze University of Applied Sciences
 Groningen, 4, 47, 51, 52, 69
Háskoli, 168
HAS University of Applied Sciences, 72
Hauptschule, 180, 182
Hautes écoles, 33, 81
Havo, 44, 45, 48
Hbo, 48, 65

Hermann, S., 47, 110–112, 260, 303, 311
Højtbegave, 113
Høy begaved, 131
High-achieving students, 144, 146, 187, 219
Higher education sector, 20, 83, 156, 165, 168, 182, 213–226, 245, 259
High-performing students, 134
High potential program, 43, 189, 218
Hogescholen, 33, 48, 49, 51, 65, 67
Högskolor, 35, 143
Honors Academy, 63. *See also*
 Honours Academy
Honors Award in Sciences, 86
Honors colleges, 38, 54, 57, 58, 209, 256.
 See also Honours College
Honors community, 55, 58, 61, 71, 276.
 See also Honours Community
Honors curriculum, 12
Honors education, 3–6, 8, 11–29, 31, 33, 36, 39, 49, 53, 58, 64, 65, 96, 100, 110, 118, 119, 150, 169, 171, 179, 193, 206, 221, 235, 236, 242, 243, 246, 249, 251–256, 258–264, 266, 267, 269, 270, 272–277
Honors Elite Programme, 202
Honors masters, 203, 207
Honors pedagogies, 270
Honors tracks, 50, 68, 193
Honours Academy, 61 *See also*
 Honors Academy
Honours Challenge, 71
Honours College, 59, 60, 69, 70, 87, 88
 See also Honors colleges
Honours Community, 55, 60 *See also*
 Honors community
Honours degree, 5, 110
Honours Lab, 68
Honours-Programm der Niederlandistik, 195, 196, 277
Hoogbegaafd, 50, 81, 82
Horizon 2020, 254–256
Hovdotal, 108
Huippuyksikkö, 158
HU University of Applied Sciences
 Utrecht, 68
HZ University of Applied Sciences, 71

I
IBE. *See* International Bureau of Education
 (IBE)
Iceland 2020 paper, 168
InHolland University of Applied
 Sciences, 69
Innovation Lab, 55, 68, 270

Innovators, 16, 27–28, 252, 256, 257
 Interdisciplinary, 12, 54, 57–67, 70–72, 87,
 193, 195, 197, 198, 203–209, 223
 International Bureau of Education (IBE),
 32, 77, 81, 110, 126, 140, 156, 233
 International Panel of Experts on Gifted
 Education (iPEGE), 176, 186, 219
 International Standard Classification
 of Education (ISCED), 22, 24, 33
 iPEGE. *See* International Panel of Experts
 on Gifted Education (iPEGE)
 ISCED. *See* International Standard
 Classification of Education (ISCED)
 Iselinge Hogeschool, 67

J

Jantelagen. *See* Law of Jante
 Janteloven. *See* Law of Jante
 Journal for the Education of the Gifted, 6
 Jugend forscht, 176, 185
 Junge Akademie, 201–202
 Junior College, 47, 58, 185

K

Kangaroo classes, 80
 Katholieke Universiteit Leuven, 83–85
 Kieboom, T., 82
 KinderUni, 176, 218, 234
 KMK. *See* Kultusminister Konferenz (KMK)
 Kullander, A., 148, 306
 Kultusminister Konferenz (KMK), 179, 180,
 182, 188–190
 Kuusisto, E., 153, 156, 158–160

L

Laboratory, 20, 52, 86, 120, 270
 Lahjakas, 158
 Language honors program, 163
 Language profile, 117, 118, 277
 Law of Jante, 100, 109, 144, 257, 267
 Leervoorsprong, 50, 82
 Leiden Leadership Programme, 60
 Leiden University, 47, 48, 51, 54, 60, 71
 Leistungsstark, 94
 Leuphana University Lüneburg, 193, 194
 Liberal arts and sciences colleges, 12, 54, 57,
 193, 194, 197, 277
 Liberal arts college, 62, 256
 Lisbon Recognition Convention, 6
 LISSA prizes, 234
 Local experts, 4, 9, 32
 Lycée, 94–96, 231

M

Maastricht Science Program, 62
 Maastricht University, 47, 54, 62, 189
 MarBLE, 62
 Marnix Academie, 72
 Master-Förderprogramm, 201
 Master program, 12, 21, 51, 55, 60, 63, 80,
 102, 109, 114, 119, 186, 195–197,
 201, 203, 206, 208, 209, 225, 235,
 261–263, 273
 Mattsson, L., 18, 38, 144–146, 148, 303, 307
 Max Planck society, 184
 Max Weber-Program, 187, 203
 Mellroth, E., 148, 302, 306
 Mensa, 80, 128, 144, 146
 Mentiqa schools, 111
 Millennium Youth Camp, 159, 160, 276
 Mission statement, 11, 28, 273, 276
 Mönks, F., 5, 45, 51
 Mono-disciplinary, 54
 Müller-Oppliger, V., 229, 233, 234, 236,
 303, 317
 Multidisciplinary, 12, 54, 62, 68, 69, 72, 193
 Multilingualism, 91–97, 229

N

National Collegiate Honors Council (NCHC),
 5, 11, 12, 15, 52, 253, 276
 Nationale Denktank, 55
 Nederlands-Vlaamse Accreditatieorganisatie
 (NVAO), 42
 Netzwerk Begabungsförderung, 234–236
 NHL University of Applied Sciences, 70
 Nordic Council, 100, 102
 Nordic countries, 6, 8, 16, 17, 19, 35, 81, 96,
 99–103, 109, 144, 148, 157, 158, 163,
 165, 171, 241, 244–245, 247, 248,
 253, 257–258, 260,
 262, 263, 267
 Nordic Master Programs, 102, 134, 148, 171
 Nordic Talent Network, 102, 103, 111, 113,
 134, 148, 159, 171, 244, 253
 Norwegian Agency for Quality Assurance in
 Education (NOKUT), 129, 132, 133
 NVAO. *See* Nederlands-Vlaamse
 Accreditatieorganisatie (NVAO)

O

Optagelse, 108
 Organisation for Economic Cooperation and
 Development (OECD), 18–20, 25–27,
 32, 47, 77, 96, 105, 112, 128, 131, 134,
 139, 140, 150, 153, 182, 229, 244

Österreichische Zentrum für
Begabtenförderung und
Begabungsforschung (ÖZBF),
217–220, 245, 253, 259

Outflow, 13, 35–36

Outreaching Honours Program, 62

ÖZBF. *See* Österreichische Zentrum für
Begabtenförderung und
Begabungsforschung (ÖZBF)

P

Pabo, 54, 72

PaboPlus, 67

Päivölä, 159, 276

Persson, R.S., 5, 16, 17, 38, 45, 101, 144, 147,
148, 271, 272, 302, 304, 305, 306, 308

Pflüger, R., 5, 144

Physiotherapy Talent Palette, 122

Pioneers, 4, 16, 27–28, 103, 254, 256, 257,
267, 269, 277

Platform Bèta Techniek, 45, 51

PREMIUM, 62

Private foundations, 176, 179, 184, 185, 188,
234, 245, 259, 263, 277

Private university, 35, 49, 53, 64, 149, 194,
198, 216, 233

Professionshøjskole, 33, 109

Programme for International Student
Assessment (PISA), 18–20, 25–27, 32,
47, 77, 96, 112, 128, 131, 134, 139,
148, 150, 153, 156, 160, 170, 182, 244,
246, 255

Projets d'établissement, 96

Q

Quetelet Colleges, 85

R

Radboud University Nijmegen, 45, 47, 51, 61–62

Rannis, 169

Realschule, 180, 182

Research Centre for Talent Development in
Higher Education and Society, 4, 51, 52

Research in Corporate Communication, 117,
256

Research universities, 15, 26–28, 33, 35, 48,
49, 51, 53–64, 71, 108–109, 114, 180,
190, 242, 252, 254, 255

Resilience, 19, 20, 131

Retention, 11, 48

Roskilde University, 117–118, 277

Rotterdam University of Applied Sciences,
54, 55, 68

S

Saarland University, 200–201

Samordna Opptak, 129

Sandemose, A., 100–101

Särbevägade barn, 145

SAT, 193

Saxion University of Applied Sciences, 69

Scandinavia, 100, 101, 147

Scholarships, 37, 68, 95, 116, 134, 150, 186,
187, 190, 202, 203, 219, 235, 236

Schweizerische Studienstiftung, 234, 235

Schweizer Jugend forscht, 234, 235

ScienceTalenter, 102, 110–112

Sekundarstufe I, 180, 185

Sekundarstufe II, 180, 185

Selectiveness, 16, 20–22, 242, 246, 247, 257,
258, 261

Self-selection, 263

Senter for Fremragende Forskning (SFF),
131, 132

Senter for Fremragende Utdanning (SFU),
132–136

Shanghai list, 23, 26, 48, 184

Single-structure education, 33, 101, 244

Sirius compass, 13

Sirius Programme, 3, 12, 13, 43, 45, 50–53,
55, 57, 65, 67, 105, 110, 118, 119,
122, 242, 251, 253, 258,
260, 267, 276

Skoleflinke barn, 131

Skolverket, 139, 141, 145, 146

Social collectivism, 17, 101

Socrates International Honour Society, 55

Spatial scales, 14

Spetsutbildningar, 145–147

Sprint class, 45

State Secretariat for Education, Research and
Innovation (SERI), 229–231, 234, 237

Stenden University of Applied Sciences, 71

Stiftung für hochbegabte Kinder, 234

Stipendienprogramme, 219

Stipendium, 179, 187

StipendiumPlus, 186, 187, 263–264

Student-based approach, 273

Studium Excellentie, 65

Studium Individuale, 194

Surdoués, 82, 235

Sveegaard, Uffe, 102, 112, 303, 310

T

Talangfulla elever, 145
 Talentarbejdsgruppe, 110, 111
 TalentCamp05, 103, 110
 Talentcenter, 113
 Talent Centre Budapest, 5–6
 Talent development, 3–6, 8, 16–19, 51, 52, 82, 96, 102–103, 105–123, 158, 168, 170, 171, 176, 184–187, 193, 235, 241, 244, 249, 251–267, 269–277
 Talenteprogramm, 189, 218
 Talentforløb Physics and Astronomy, 116
 Talentvolle studenter, 50, 82
 Task Force for Giftedness Research and Gifted Education, 217, 219
 Technical University Delft (TUD), 61
 Technical University Hamburg-Harburg, 195–197
 Technical University Munich (TUM), 184, 201–203, 205–209
 Technical University of Denmark (DTU), 109, 114, 119–121, 275
 Technical University of Vienna, 226, 275
 Tertiary education, 17, 22–24, 33, 108, 129, 168, 183, 213, 214, 218–220, 245, 261
 The Hague University of Applied Sciences, 70
 Theological University of the Reformed Churches Kampen, 53–54, 64
 Three-tier system, 21
 Tier-one universities, 35, 231, 233
 Tilburg University (TilU), 62–63
 TilU. *See* Tilburg University (TilU)
 Times Higher Education World University Rankings, 23, 26–28, 48, 80, 109, 130, 216, 231, 255
 Tirri, K., 16, 153, 158–160
 TopClass, 69
 Top Teacher Program, 69
 Transdisciplinary, 69, 207
 TUD. *See* Technical University Delft (TUD)
 TUE. *See* TU/Eindhoven (TUE)
 TU/Eindhoven (TUE), 63–64
 Tuition fees, 20, 22, 49, 79, 101, 168, 171, 179, 183, 230, 233, 236, 264
 TUM. *See* Technical University Munich (TUM)
 Tuthetop, 226
 Twin bachelor, 36

U

UAntwerp. *See* University of Antwerp (UAntwerp)
 UNESCO, 22, 32, 33, 77

Ungdomsskole, 128

Uni@Lycées, 95
 Universiteit Gent, 47. *See also* Ghent University
 Université Métropolitaine, 88, 96
 Universities of applied sciences, 27, 33, 35, 38, 48–55, 64–73, 77, 83, 154, 156, 177, 180, 182, 183, 216, 230, 231, 233, 236, 237, 242, 252, 255
 University College Freiburg, 197
 University College Lillebaelt, 121–122
 University College Maastricht, 54, 62, 189
 University College Roosevelt, 54, 58
 University colleges, 33, 35, 38, 49, 54, 63, 70, 80, 109, 111, 112, 115, 116, 128–130, 135, 143, 146, 149, 216, 244, 255, 277
 University College Utrecht, 38, 47, 54, 58, 189
 University of Aarhus, 109, 116
 University of Amsterdam (UvA), 48, 54, 57–59, 73
 University of Antwerp (UAntwerp), 87–88
 University of Applied Sciences Leiden, 71
 University of Freiburg, 193, 197–198, 277
 University of Groningen (RUG), 59
 University of Oldenburg, 195
 University of Oulu, 163
 University of Paderborn, 200
 University of Regensburg, 201, 202, 205–206
 University of Southern Denmark, 116–117, 256
 University of Turku, 162–163
 University of Twente (UT), 54, 63
 University of Ulm, 198
 University rankings, 23, 24, 26–28, 48, 109, 130, 184, 216, 231, 255
 UT. *See* University of Twente (UT)
 U-Talent, 58
 Utrecht Law College, 58
 Utrecht University (UU), 47, 48, 52, 54, 58, 190
 UU. *See* Utrecht University (UU)
 UvA. *See* University of Amsterdam (UvA)

V

Vandvik, Vigdis, 132, 303, 314
 Van Eijl, P., 11–13, 35
 VET. *See* Vocational education and training (VET)
 Videncenter, 264
 Videregående skole, 126, 128
 Vienna University of Economics and Business, 216, 223–226, 275
 Vitebegjærlige barn, 131

Vmbo, 44, 45
Vocational education and training (VET), 129, 140, 231, 234
VU University Amsterdam, 57, 59–60
Vwo, 44–45, 48, 72, 126, 247

W
Wageningen UR, 64
Walloon, 42, 96
War for talent, 24–25, 264
White Paper, 217, 219, 220
WHU-Otto Beisheim School of Management, 198–199, 272

Windesheim Honours College, 70
Windesheim University of Applied Sciences, 70
WU Top League, 223–225, 264

Y

Yliopisto, 156
Young Bachelor program, 72

Z

Zuyd University of Applied Sciences, 70